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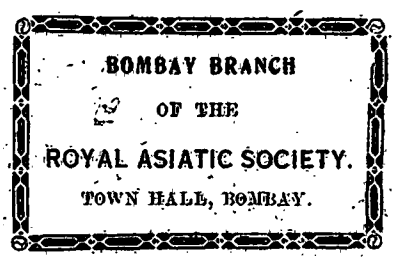

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REPORT

ON

AN ENQUIRY INTO CONDITIONS OF LABOUR IN THE ENGINEERING AND MINERALS AND METALS INDUSTRIES IN INDIA

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BY

B. P. Adarkar
Member, Labour Investigation Committee

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CONTENTS.

	PAGES.
Preface	(iv)
Acknowledgment	(vii)
CHAPTER I.—INTRODUCTION	1
Employment.—Future of Employment	2
War-time Difficulties	3
Standardisation of Occupational Terms	4
Location of the Industry	5
Scope of the Enquiry	6
Working of the Labour Acts.—Factories Act. War-time Exemptions. Payment of Wages Act. Workmen's Compensation Act. Maternity Benefit Acts. The Mysore Labour Act	7
CHAPTER II.—GENERAL ENGINEERING (Including some Minerals and Metals)	
Scope of the Enquiry.—Samples Investigated	9
Employment.—Female and Child Labour. Piece-rated Labour. Contract Labour. Length of Service. Permanent and Temporary Classification. Apprenticeship. Labour Turnover. Absenteeism. Standing Orders. Recruitment and Labour Officers	13
Wages and Earnings.—Wage-rates and Gross Earnings : Madras—Bombay—Bengal—United Provinces—Punjab—Bihar—Baroda—Mysore. Dearness Allowance. Bonus and Other Allowances. Overtime. Deductions and Fines. Wage Period. Holidays	25
Working Conditions.—Shifts and Hours of Work. Ventilation, Lighting, etc. Shelters	50
Welfare Activities.—Sanitary Arrangements. Medical Aid. Canteens. Creches and Education. Grain Shops.	54
Housing	61
Trade Unions and Strikes.—Trade Unions. Works Committees. Strikes.	67
General.—Accidents. Indebtedness. Provident Fund. Gratuities. Pensions.	71
CHAPTER III.—ELECTRICAL ENGINEERING (Including Electrical Generating and Transforming Stations)	76
Employment.—Female Labour. Piece-rate Workers. Contract Labour. Length of Service. Permanent and Temporary Classification. Apprentice System. Labour Turnover. Absenteeism. Standing Orders. Recruitment. Labour Officer	78
Wages and Earnings.—Madras—Bombay—Bengal—United Provinces—Punjab—Bihar Dearness Allowance. Bonus and Other Allowances. Overtime. Deductions and Fines. Wage Period. Holidays	86
Working Conditions.—Shifts and Hours of Work. Ventilation, Lighting, etc. Shelters	102
Welfare Activities.—Sanitary Arrangements. Medical Aid. Canteens. Creches and Education. Grain Shop	104
Housing Accommodation	107
Trade Unions and Strikes.—Trade Unions. Works Committees. Strikes	110
General.—Accidents. Indebtedness. Provident Fund. Gratuity	112
CHAPTER IV.—RAILWAY WORKSHOPS	117
Employment.—Length of Service. Permanent and Temporary Workers. Apprenticeship. Labour Turnover and Absenteeism. Recruitment and Labour Officers	119
Wages and Earnings.—Dearness and Other Allowances. Earnings. Overtime, Deductions and Fines. Wage Periods. Holidays	125
Working Conditions.—Hours of Work, Shifts and Rest-Interval. Ventilation, Lighting, etc.	134
Welfare Activities.—Sanitary Arrangements. Medical Aid. Canteens. Creche, Education and Grain Shops	138
Housing Accommodation	139
General.—Accidents. Indebtedness	141

PAGES.

CHAPTER V.—COACH-BUILDING AND MOTOR REPAIRING 142

Employment.—Length of Service. Classification of Permanent and Temporary Workers. Apprenticeship. Graded or Time-scale Promotion. Labour Turnover. Absenteeism. Standing Orders. Recruitment and Labour Officers 144

Wages and Earnings.—Wage rates in 1939 and 1944 : Madras—Bombay—Bengal. Dearness Allowance. Bonus. Overtime. Deductions and Fines. Wage Period. Holidays 149

Working Conditions.—Shifts and Hours of Work. Ventilition, Lighting, etc. Shelters 156

Welfare Activities.—Latrines, Urinals and Water supply. Medical Aid. Canteens, Creches and Education. Grainshops 157

Housing 158

Trade Unions and Strikes.—Trade Unions. Works Committees. Strikes. 158

General.—Accidents and Occupationsl Diseases. Indebtedness. Provident Fund and Gratuities 159

CHAPTER VI.—KEROSENE TINNING AND PACKING 162

Employment.—Classification of Workers. Length of Service. Apprenticeship. Graded or Time-scale Promotion. Labour Turnover. Absenteeism. Recruitment and Labour Officers 163

Wages and Earnings.—Dearness Allowance, Bonus and Overtime. Deductions and Fines. Miscellaneous 167

Working Conditions.—Shifts and Hours of Work. Ventilation and Lighting. Rest Shelters. Sanitary Arrangements, etc. 169

Welfare Activities.—Medical Facilities. Canteens and Grain Shops. Schools and Creches 170

Housing 170

Trade Unions and Strikes 170

Safety Acts, etc. 171

Indebtedness 172

Miscellaneous.—Provident Fund. Pensions and Gratuities 172

CHAPTER VII.—METAL STAMPING 173

Employment.—Contract Labour. Length of Service of Operatives. Classification of Workers and Apprenticeship. Promotions. Labour Turnover and Absenteeism. Standing Orders. Recruitment 174

Wages and Earnings.—Rates of Wages. Dearness Allowance and Bonus. Overtime, etc. 177

Working Conditions.—Shifts and Hours of Work. Light and Ventilation, etc. .. 182

Welfare Activities.—Medical Aid. Canteens and Grain Shops 182

Housing 183

Trade Unions and Strikes.—Trade Unions. Strikes 183

Safety Acts, etc. 183

Indebtedness 184

General 184

CHAPTER VIIII.—ORDNANCE DEPOTS AND FACTORIES 184

Employment.—Female and Child Labour. Piece-rated and Contract Labour. Length of Service. Permanent and Temporary Workers. Apprentices. Labour Turnover Absenteeism. Standing Orders. Recruitment. Labour Officers 185

Wages and Earnings.—Rates of Wages in Depots. Rates of Wages in Ordnance Factories. Increments. Wages of Piece-rated and Contract Labour. Dearness Allowance. Earnings. Overtime. Deductions and Fines. Wage Period and Wage Payment. Holidays. 195

PAGES.

Working Conditions.—Shifts and Hours of Work. Ventilation, Lighting, Congestion, etc. 205

Welfare Activities.—Sanitary Arrangements, Water supply Latrines, Urinals, Washing and Bathing Facilities, etc. Medical Facilities. Canteens. Creches, Education. Grain Shops. 208

Housing Accommodation 213

Trade Unions and Strikes.—Trade Unions. Workers' Welfare Committee. Strikes. 217

General.—Accidents, Indebtedness. Provident Fund, Gratuities and Pensions .. 218

CHAPTER IX.—MISCELLANEOUS 221

Employment.—Employment of Women and Children. Contract Labour. Length of Service. Classification of Workers. Apprenticeship. Promotions. Labour Turnover. Absenteeism. Standing Orders. Recruitment. Labour Officers .. 223

Wages and Earnings.—Dearness Allowance. Bonus. Other Allowances. Earnings. Overtime. Fines and Deductions. Wage Period. Closed Days and Holidays .. 228

Working Conditions.—Shifts and Hours of Work. Ventilation, etc. 235

Welfare Activities.—Medical Aid. Canteens. Schools. Grainshop 236

Housing 237

Trade Unions and Strikes.—Workers' Councils. Strikes. 237

Safety Acts, etc.—Occupational Diseases and accidents 239

General.—Indebtedness. Provident Fund 240

CHAPTER X.—SUMMARY AND CONCLUSIONS 240

Employment.—Female and Child Labour. Piece-rated Labour. Contract Labour. Length of Service. Temporary and Permanent Classification. Apprenticeship System. Labour Turnover and Absenteeism. Standing Orders. Recruitment. Labour Officers. 240

Wage and Earnings.—Dearness Allowance. Bonus and Other Allowances. Overtime. Deductions and Fines. Wage Period. Holidays. 246

Working Conditions.—Shifts and Hours of Work. Conditions of Work in Factories. Shelters. 249

Welfare Activities.—Sanitary Arrangements. Medical Aid. Canteens. Creches and Education. Grainshops 250

Housing Accommodation. 252

Trade Unions and Strikes.—Trade Unions. Works Committees. Strikes 253

General.—Accidents. Indebtedness. Provident Fund. Gratuities. 254

APPENDIX I.—Views of Employers' Associations 257

APPENDIX II.—Provincial Distribution of Employment in the Engineering Industry, 1939 and 1943 (Number of Workers) 262

APPENDIX III.—Provincial Distribution of Engineering Factories, 1939 and 1943 .. 446

APPENDIX IV.—Standard Labour Classification in a Coach Building Factory 265

APPENDIX V.—Development of Dearness Allowance and Bonus Systems in a Coach Building and Motor-Repairing Factory 266

APPENDIX VI.—Works Committee in a Bengal Coach Building Factory 268

APPENDIX VII.—Workers, Welfare Committees in Ordnance Concerns. 269

PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of a machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L 4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each. The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry.* (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making, Cigar and Cigarette. (29) Mica Splitting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour. (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance, while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different Provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection, it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed and (b) supplementary and special questionnaires in respect of certain industries such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton, woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst employers' and workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned, it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North West Frontier Province where none of the industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint its own Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) the Committee, as a whole, to study each industry, (ii) the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

D. V. REGE, *Chairman.*

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AHMAD MUKHTAR } *Members.*
B. P. ADARKAR

TEJA SINGH SAHNI,
Secretary.

ACKNOWLEDGMENTS.

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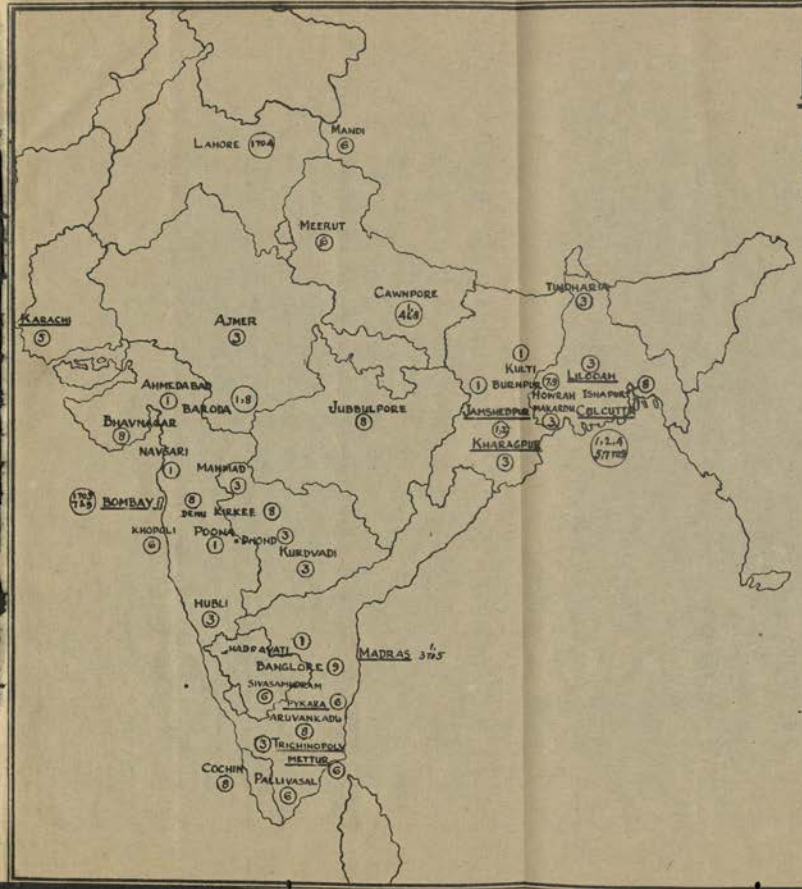

MAP OF INDIA

CONTAINING ENGINEERING AND MINERALS AND METAL CENTERS.

1. NOTE:- IMPORTANT CENTERS HAVE BEEN UNDER LINED.

1. GENERAL ENGINEERING.
2. ELECTRICAL - DO -
3. RAILWAY WORKSHOPS.
4. COACH BUILDINGS.
5. KEROSENE TINNING & PACKING
6. GENERATING STATIONS.
7. METAL STAMPING.
8. ORDINANCE FACTORIES & DEPOTS.
9. MISCELLANEOUS.

2. NOTE:- Figures with in circles indicate industry or industries mentioned above.

CHAPTER I.—INTRODUCTION.

The Engineering Industry covers a very comprehensive field comprising a variety of trades. In the official publication, *Statistics of Factories*, the category ' engineering ' includes the following : (i) Coach Building and Motor Car Repairing ; (ii) Electrical Engineering; (iii) Electrical Generating and Transforming Stations ; (iv) General Engineering ; (v) Kerosene Tinning and Packing; (vi) Metal Stamping; (vii) Railway Workshops; (viii) Ship Building and Engineering; (ix) Steel Trunk, Lock and Cutlery; (x) Tramway Works and (xi) Miscellaneous. In addition to these two important categories have to be considered, viz., Government and Local Fund factories engaged on engineering processes and a large group of concerns, which are classified in the *Statistics of factories* as ' Minerals and Metals '. It is clear that no perfect definition of the term ' engineering ' can be given, and, in fact from the moment the raw material, e.g., the mined ore, comes from the mine to the final stage in which a machine or a ship or an electrical article is put on the market, there can be a large number of intermediate stages. It is difficult to say where precisely ' engineering ' begins and where it ends. For this reason, we have adopted a somewhat broad connotation of the term and included in our survey certain Government-owned concerns, such as ordnance depots and factories, as well as iron foundries, iron and steel smelting and steel rolling mills. It may be mentioned here that the shipbuilding industry forms part of a separate *ad hoc* survey (*vide Report on Dockyards*), as also petroleum refineries (*Report on Mineral Oil*). The following statement gives the details of the industries covered in this Report :—

TABLE 1.

Industries Investigated.

Category.	Industries covered under the Category.
1 General Engineering	(*i*) General Engineering* ; (*ii*) Steel Trunk Lock and Cutlery ; (*iii*) Foundries ; and (*iv*) Iron and Steel Smelting and Steel Rolling Mills.
2. Electrical Engineering	(*i*) Electrical Engineering* (Workshops) ; (*ii*) Electrical Generating and Transforming Stations (Power Stations) ; and (*iii*) Tramway Works.
3. Railway Workshops	Railway Workshops**.
4. Coach Building and Motor Repairing ..	Coach Building and Motor Repairing.
5. Kerosene Tinning and Packing ..	Kerosene Tinning and Packing.
6. Metal Stamping	Metal Stamping.
7. Ordnance	Ordnance Depots and Factories.
8 Miscellaneous	Miscellaneous Engineering Factories.

*These industries include both (*i*) Government and Local Fund Factories and (*ii*) All other Factories.

**These are purely Government factories.

I.—Employment.

The total employment in the Engineering and allied industries is well over 550,000 at present. Employment in these industries has more than doubled in war time. Engineering being a heavy industry, it does not employ women in any appreciable numbers. Rarely where they are employed, they are engaged as sweepers or coolies. Children are not employed but adolescents are occasionally engaged.

While in large concerns, like the Tata Iron and Steel Co., Jamshedpur, and the Tinplate Co. of India, Golmuri, the workers are more or less settled, in the J. K. Group of Industries, Cawnpore, and in several small engineering factories the majortiy of workers are migratory. The phenomenal increase in employment during war time has necessitated the absorption of migratory labour on a large scale in the engineering industry. The Indian Engineering Association are of the view that 60 per cent. of the labour in Calcutta and Bombay areas are permanently settled, while the rest are migratory and are recruited from the adjoining provinces. Generally skilled workers are more settled than unskilled labour.

Employment in various branches of the industry for different Provinces for the years 1939 and 1943 is shown in Appendix II. In general engineering employment has increased in all Provinces by nearly 100 per cent. while in some provinces like the U.P., C.P., the Punjab and Sind, employment has increased nearly fourfold. The increase in employment was solely due to expansion in private factories, while in several Government and Local Fund Factories the number of persons employed registered an actual decline. Increase in employment was due mainly to war contracts and Government orders. In the electrical engineering industry employment shows an increase of 50 per cent. The increase is more in electrical workshops than in power stations. Railway workshops show an increase of nearly 40 per cent. while in the coach building and motor repairing industry employment has increased by over 200 per cent. In Kerosene tinning and metal stamping, employment has doubled. Naturally, ordnance factories and depots have expanded most in respect of employment. The increase in the number of persons employed, as compared to 1939, is nearly 327 per cent. Miscellanous engineering concerns also show an increase in employment of nearly 180 per cent. Employment in the metal stamping industry and in several miscellaneous industries did not increase uniformly. In those factories which were executing war orders or having government contracts employment increased enormously, while in others there was a fall in employment.

Future of Employment.—The future of employment in the engineering industry is very uncertain. The increase in employment during the last five years was solely due to war. Now that hostilities have ceased, the bulk of the workers engaged in the industry are faced by unemployment. Already mass discharge of workers have started in ordnance factories and depots. In general engineering, however, even apart from war-time expansion, there has been a steady growth both in the number of concerns and the number of persons employed. The increase in employment would have been even greater but for shortages of materials and machinery as well as technically trained personnel. If the post-war expansion of Indian industries, particularly the building trades and the public works projects of Government, creates an increased demand for the products of the engineering industry, the industry can expand rapidly and make further use of the development in technique and skill it has achieved during the war. Employment in electrical generating and power stations did not increase appreciably during war time and there is no

ground for fear that employment would decline during the post-war years. On the other hand, the various schemes of electrical development, which Government have in view for the post-war period, might bring about an increase in employment. The case of electrical workshops is, however, different; for, war-time expansion in these has been large and they may not be able to maintain the volume of employment on the same level during the immediate post-war years. As for the railway workshops, the policy adopted by the railways is to treat all new employees recruited during war time as temporary. It is expected, therefore, that a fairly large number of workers will be thrown out of employment. The increase in employment in coach building and motor repairing concerns was to a large extent due to work done for Army vehicles and other defence requirements. The demand for producer-gas equipment for motor vehicles due to war-time shortage of petrol was also largely responsible for the increase. Unless motor transport and the motor industry in India expand after the war there is likely to be a considerable fall in employment in this industry. The Kerosene tinning and metal stamping industries also expanded during war time and employed workers in large numbers to cope with increased orders. Employment in these factories might fall during post war years but total employment in these industries is not so large as to cause grave concern. Several miscellaneous engineering concerns such as the Aircraft factories in Poona, Bombay and Bangalore have been started solely for purposes of war and the sudden cessation of hostilities must cause serious dislocation in employment.

Large scale retrenchment is likely to occur mainly in ordnance factories and depots and in factories engaged on war work. It is to be feared that the discharged workers will not find alternative employment in civil occupations. For that matter, even in private industries where it is sought to place the discharged workers from ordnance factories, etc., the problem of unemployment of workers will be equally acute. Although, however, the indications are that total employment in the engineering industry will fall considerably, there is scope for expansion in various directions and one can reasonably expect that engineering will take a prominent place in any post-war industrial development, if the problem of paucity of capital goods and heavy machinery is solved. Otherwise, unemployment in the engineering industry is a certainty that has has to be faced.

II.—War-time Difficulties.

During war time, many engineering concerns experienced various difficulties, such as shortage of technical personnel, non-availability of machine-tools and of iron and steel products, and shortage of coal. The increased demand for engineering products especially for war purposes involved an increased demand also for trained personnel. Adequately trained technicians were few as compared to the demand for their services. The Government of India's Technical Training Scheme eased the situation to a large extent in later years. In the early days of the war, technicians were in such great demand that factories were out to secure their services at all costs. Enticing away skilled workers with higher wages was a common practice. This greatly dislocated the industry and impeded war work; and Government promulgated the Essential Services (Maintenance) Ordinance to put a stop to the enticing away of labour on the one hand and to assure uninterrupted working of industries engaged on war work, on the other. Shortage of labour was not confined to skilled workers alone. Many concerns, especially ordnance factories, experienced difficulty in getting unskilled labour as well. Several factories, such as steel rolling mills and iron smelting factories and

foundries were greatly handicapped by the shortage of coal and coke. Many metal stamping and miscellaneous engineering concerns could not get the necessary raw materials for production. The distribution and sale of several essential metals were controlled by the Government and permits were issued mostly to those factories which were directly engaged on war work or were executing Government orders, with the result that the other factories were greatly handicapped. Moreover, transport difficulties, whether for the bringing of raw materials or for disposing of the finished product, were not the least of some of the difficulties the industry had to face during war time.

III.—Standardization of Occupational Terms.

One of the biggest problems in the engineering industry, as well as in textiles, is the absence of uniform terminology for the various occupations which it comprises. Terms like " fitter ", " moulder ", " mistry.", " machine-man ", " khalasi ", etc., have scores of different connotations in different parts of the country and sometimes even in the same centre. Not only this, but even if a man is called by one name, he may be doing the work appropriate to several other categories, and on the same day he may work in different processes in a concern. Of course, in the larger concerns, some sort of standardization of occupational terms is attempted, and it appears that the Indian Engineering Association have fixed hourly basic rate of wages for the Calcutta and Bombay areas and for this purpose, the different trades are classified. Broadly speaking however, there is a great confusion in this regard, and it appears that a large number of employers benefit by the confusion. The representatives of engineering workers complained that owing to lack of standardization of terms, it was possible for an employer to pay wages according to his inclination, and also to require workers engaged on the one job to take up work rightly belonging to another category. It was stated that owing to the unorganised condition of labour in the industry, this kind of exploitation could not be checked. It was not possible to verify this allegation with regard to the entire industry, though in many small concerns it was amply borne out. It is clear that the question of standardization of *wages* hinges upon a correct solution of the problem of standardization of occupational nomenclature. Apart from uniformity of wages, the work of Employment Exchanges would be greatly facilitated, if there were some sort of terminological uniformity. The Government of India have taken keen interest in this problem and it was discussed at the Conference of the Chairmen of National Services Labour Tribunals in December 1943, and subsequently Provincial Committees with the Chairmen of the National Service Labour Tribunals as chairmen were set up in some of the industrial Provinces. They were to examine and report on the standardization of occupational terms, statistics of wages and methods of wage fixation, the extent to which standard basic wages could be fixed and the possibility of introducing a measure of standardization in respect of overtime, night work, bonus and other forms of remuneration supplementing the basic rates. It was, however, soon realised that standardization cannot be on a *Provincial* basis only, but has to be on an all-India character, and it appears that the work of this Provincial Committee has been temporarily suspended. At the same time, the Labour Department of the Government of India have taken up this problem of occupational classification in various industries in connection with Resettlement and have issued *Guides* for various civil occupations, including engineering, building construction, transport services, communications, etc. These *Guides to Occupational Classifications* are likely to be of great use to employers as well as to Employment Exchanges in future. The problem, however, is complicated by the fact that employers at present have their own

various modes of classification and are not always agreeable to accept new classifications. Unless an element of persuasion, or even of compulsion, is introduced, we may find it difficult to get such standardization universally accepted. The problem goes to the root of any wage legislation, whether for minimum wages or for fair wages. For this reason, it is also very often hazardous to compare wages in different areas or centres or concerns. The problems of standardization of occupational terms is also complicated by the orthodoxy, and, as stated earlier, sometimes the self-interest of the employers, especially in small concerns. To tackle the problem effectively may take several years. It may be recalled that in the United Kingdom, the Ministry of Labour took something like 25 years to produce its monumental *Guide to Occupational Classifications*. This Guide has been enforced in various industries for the purposes of wage fixation and employment services, and it is being continually expanded and corrected from year to year by trained experts engaged on each group of occupations. In India, something similar may have to be attempted.

"IV.—Location of the Industry.

The Provinces of Bombay, Bengal, Madras and the Punjab account for nearly 75 per cent. of the engineering concerns in British India. General engineering, electrical engineering, railway workshops and coach building and motor repairing concerns are scattered in the various Provinces and a few even in Commissioners' Provinces, especially Delhi. After the four major Provinces mentioned above, comes the United Provinces in importance in regard to the engineering industry. Kerosene tinning and "miscellaneous" factories are mostly confined to Madras, Bombay and Bengal, and metal stamping to Bombay and Bengal. Delhi is the only Commissioner's Province that has a somewhat developed engineering industry. Appendix III to this Report gives the distribution of the various branches of the industry Province-wise in 1939 and 1943. Most of the factories are located in urban areas. Several railway workshops are in the suburbs of cities as also in the mofussil. Many electrical generating stations are in rural areas, but transforming stations are mostly in urban or suburban areas. Among States, Mysore and Baroda take a prominent place in regard to the development of the engineering industry.

Various factors have contributed to the present location of the engineering industry. The easy access to iron ore and coal have made Bihar the home of the iron and steel industry, and Jamshedpur where the Tata Iron and Steel Co., is established has further advantages in that it is situated on the banks of two rivers, viz., the Suvarnorekha and Kharkai which promise an unfailing water supply. Likewise, Burnpur in Bengal and Bhadravati in Mysore, two other important centres of the engineering industry, owe their location to similar factors. Coach building and motor repairing industry has naturally developed in large cities for the demand for their products or services are great in such cities. Similarly, kerosene tinning and packing is located in the Provincial capitals of Bombay, Calcutta, Madras and Karachi, these cities serving as the best distributing centres for kerosene.

The following are some of the important centres of location of the engineering industry :—

General Engineering.—Madras ; Bombay ; Poona ; Ahmedabad ; Bhiwandi ; Calcutta ; Kulti ; Burnpur ; Cawnpore ; Lahore ; Jamshedpur ; Baroda ; Navsari ; Bhadravati.

Electrical Engineering.—Electrical workshops are mainly in big cities like Bombay, Calcutta, Lahore, Jamshedpur, etc., while in almost all towns, big and small, power stations (electric power houses) have been erected. Some of the important hydro-electric generating stations are in Khopoli, Pykara, Mettur, Sivasamudram, Pallivasal, Mandi, Meerut, Bhira, Bhivpuri, etc.

Coach Building and Motor Repairing.—Madras ; Bombay ; Calcutta ; Lahore ; Cawnpore.

Kerosene Tinning and Packing.—Madras ; Bombay ; Calcutta ; Karachi.

Metal Stamping.—Bombay ; Calcutta and Howrah.

Ordnance Factories.—Kirkee ; Dehu ; Jubbulpore ; Calcutta ; Ishapur ; Cawnpore ; Baroda ; Cochin ; Bhavanagar ; Aruvankadu.

Miscellaneous.—Bombay and suburbs ; Bangalore ; Calcutta and Howrah.

V.—Scope of the Enquiry.

While selecting the samples for investigation various factors, such as location of industry, nature of work done, size of the factories, etc., were taken into consideration. In all 220 factories employing 3,05,225 workers were covered, as will be seen from the table below :—

TABLE 2.

Factories and Workers covered by Investigation.

Industry*.	Factory Statistics (1943)†		Covered by Investigation.	
	Factories.	Workers employed.	Factories.	Workers employerd.
General Engineering	1,154	1,95,679	65	95,898
Electrical Engineering	206	25,175	43	16,354
Railway Workshops	184	1,41,352	45	55,836
Coach Building and Motor Repairing	166	20,626	20	13,296
Kerosene Tinning and Packing ..	43	9,706	3	4,196
Metal Stamping	75	8,898	8	2,514
Ordnance Depots and Factories ..	45	1,31,076	22	1,09,637
Miscellaneous	256	18,840	14	7,494
Total ..	2,129	5,51,352	220	3,05,225

*Industries under this column include all those mentioned in the previous table.

†'Factory Statistics' cover only those factories in British India which come under the Factories Act, 1934 ; Factories investigated include some factories in the Indian states and also some of those which do not come under the Factories Act. So the two sets of figures are not strictly comparable.

These 220 factories were selected from the Provinces and Indian States as follows :—

TABLE 3.

Location of Concerns Investigated.

Province or State.	Number of Concerns investigatd in								
	General Engineering.	Electrical Engineering.	Railway Workshops.	Coach Building & Motor Repairing.	Kerosene Tinning & Packing.	Metal Stamping.	Ordnance.	Miscellaneous.	Total.
Madras	9	4	3	3	..	..	..	..	19
Bombay	18	20	35	6	3	8	13	12	115
Bengal	22	15	4	7	..	..	3	..	51
U. P.	3	1	..	1	..	..	1	..	6
Punjab	5	2	2	3	..	..	..	..	12
Bihar	4	1	..	..	..	..	..	1	6
Ajmer-Merwara	..	..	1	..	..	..	..	..	1
C. P. & Berar	..	..	..	..	..	..	2	..	2
Baroda	3	..	..	..	..	..	1	..	4
Mysore	1	..	..	..	..	..	..	..	1
Bhavanagar	..	..	..	..	..	..	1	..	1
Cochin	..	..	..	..	..	..	1	..	1
Aundh	..	..	..	..	..	..	..	1	1
Total ..	65	43	45	20	3	8	22	14	220

Working of the Labour Acts.

The Factories Act.—The provisions of the Factories Act are generally observed. Sometimes, as the Indian Engineering Association have remarked in their reply, small and newly established factories which cannot be easily located no doubt try to evade the provisions of the Act. Most of the Ordnance Depots do not use any mechanical or electrical power and, for this reason, do not fall under the Act, although some of them have workshops on the premises and are partly covered. In several cases, the workshops are separated from the depots and the applicability of the Act to the depots fully is still a matter of dispute. In Bengal, the factories are inspected only at rare intervals. During war time inspections have been rarer still and some factories have not been visited more than once during five years. The results

are that safety measures have been neglected causing numerous accidents. In certain kerosene tinning and miscellaneous factories, Sections 35, 36 and 42 of the Act have been contravened and the Factory Inspectors have passed strictures on such contravention.

In the Baroda State, the State Factories Act applies to the factories. The Act is on the lines of the British Act (1934) except that the hours are 60 per week for perennial factories and 66 for seasonal factories and there is no provision for a weekly holiday but only an insistence on a minimum of 4 holidays in a month and 52 in a year. Sections 78 and 79 have also been omitted. Several other States, including Mysore, Travancore, Cochin and Aundh, etc., also have separate Factories Act applicable in the respective States.

War-time Exemptions.—Section 8 of the Factories Act authorises a Provincial Government in case of public emergency to exempt any factory from any or all the provisions of the Act for such period as it may think fit. Section 44 of the Act also authorises Provincial Governments to exempt factories from any or all the provisions of Sections 34—40, if the exemption is required to enable a factory to deal with exceptional pressure of work. Exemptions granted under Section 44 can only be for a period of two months and any exemption in respect of weekly hours of work (Section 34) is subject to maximum limits to be prescribed. During war time, several engineering factories were granted exemption under Section 8. The exemptions have been granted to enable factories to concentrate on maximum production of goods for war. Other exemptions usually granted have been from Section 34 (weekly hours), Section 35 (weekly holiday), Section 36 (daily hours) and Section 37 (intervals for rest). In a few cases, exemption has also been given from the provisions of Section 38 (spreadover) Section 39 (notice of periods of work for adults), Section 40 (copy of notice of periods of work to be sent to Inspector), Section 45 (restrictions on the employment of women), Section 46 (special provision for night shifts) and Section 47 (extra pay for overtime). Railway workshops, ordnance factories and depots, motor repairing and assembling works, electrical workshops, and generating stations, structural and general engineering factories, docks and oil companies usually have got exemptions from the provisions of Sections 34—40 of the Act. In Bombay and Bengal, exemptions have generally been granted from one or more of Sections 34—38 ; in Assam, Bihar and United Provinces, from Sections 34—36 ; in Madras and the Punjab, from one or all of the provisions of Sections 34—40. Exemptions from Sections 45—47 were granted only rarely.

Generally in Madras, Bengal, Bihar, United Provinces and Assam, the exemptions were for the duration of the war while in the Punjab, they were only for six months. In Bombay, the exemptions were for periods below six months and in Sind, which utilised Section 44 to grant exemptions, the period was only two months. In Bombay, Sind and the Punjab, the exemptions were renewed from time to time. In some cases, the exemptions appear to have been too liberal. For example, the U. S. Army General Motors Repair Workshop in Sind was exempted from *all* the provisions of the Act for the duration of the war, while in some other cases, the period of exemption was unspecified.

The Payment of Wages Act.—The provisions of the Act are complied with in almost all factories. In some concerns in Bengal it was found that the right procedure was not always followed in calculating overtime wages. The Indian Engineering Association complains of a practical difficulty. Labourers are apt to leave without notice and without giving an address and later make applications for payment of wages through the Commissioner who orders the payment of wage due and imposes a fine of Rs. 10. The Association suggests that the Act be amended so that a workman should not appeal

to the Commissioner until he has proof that he has applied direct to his employer for payment, in the first place, and also furnished proof that payment has been withheld without due cause.

Workmen's Compensation Act.—Generally speaking, in the engineering industry and especially in the larger concerns, the provisions of the Workmen's Compensation Act are faithfully observed. In the Bombay Province, almost all engineering firms insure their liability, while in Bengal most firms do so. In the Calcutta area all arrangements are carried out through the Calcutta Claims Bureau which has been established by Insurance Companies to deal with employment injury claims. Some large concerns in Bengal prefer to cover their own risks and have established special funds for the purpose. Several very small concerns and sometimes new concerns do not insure their liability to pay compensation. In some of the Indian States, Workmen's Compensation Acts, modelled on the British Indian measure, apply to engineering concerns. In some others, similar legislation is contemplated. There is no information available as regards the working of these Acts.

Maternity Benefit Act.—The Provincial Maternity Benefit Acts apply to all these factories, but the number of women engaged in the engineering industry is very small. The ordnance factories and depots assert that the Maternity Benefit Acts are not applicable to them as they are provincial legislation, which, they contend, is not applicable to concerns belonging to the Central Government. This legal point has not yet been properly dealt with.

The Mysore Labour Act.—The Mysore State passed the Mysore Labour Act in 1942, an important provision of which makes it compulsory for all factories employing 100 or more workers to recognise any registered trade union of their workers. This Act is in force at Bhadravati.

CHAPTER II.—GENERAL ENGINEERING (Including Some Minerals and Metals).

Scope of the Enquiry.—The 65 units investigated fall under the following main classes :

(i) General Engineering (47 units) ;
(ii) Steel, Trunk, Lock and Cutlery (2 units) ;
(iii) Foundries (8 units) ; and
(iv) Iron & Steel Smelting and Steel Rolling Mills (8 units).

According to Factory Statistics, the first two classes come under Engineering, whereas the other two classes form part of Minerals and Metals. From the standpoint of the number of factories, general engineering is the most important branch of the engineering industry. If the number of workers employed is taken into consideration, it stands third in rank, the first two being Ordnance Factories and Railway Workshops. The following table shows the strength of the four branches, the labour conditions in which have been described in this chapter.

TABLE 4.
Factories and Workers in 1943

Category.	No. of factories.	No. of workers.
I Engineering	1,929	5,13,613
(i) General Engineering	919	1 20,227
(ii) Steel, Trunk, Lock and Cutlery	16	2,626
II Minerals & Metals	389	92,694
(i) Foundries	173	11,832
(ii) Iron & Steel Smelting & Steel Rolling Mills	46	60,944

Most of the factories in this group are small units. In Bombay, for example, in 1943 out of the 218 general engineering factories (coming under the Factories Act), 100 were ' notified factories ', i.e., coming under Section 5 of the Factories Act. The total employment in these 100 factories was only 1,277, while the remaining 118 factories employed 12,355 workers.

The nature of work done in the units investigated may be broadly stated as consisting of, mainly (a) metal casting, (b) repairs to machinery and the making of spare parts, (c) making of certain types of machinery like rice hullers, oil expellers and ghanies, groundnut decorticators, coffee-grinders, centrifugal pumps, producer-gas plants, tobacco canning furnaces, etc., (d) structural work like the cutting, drilling, punching and shearing, joining, riveting and welding of metal sheets, rods, angles, plates, etc., for the construction of different types of structures, (e) carpentry work, making of patterns for the preparation of moulds for casting metal, as well as the making of different wooden parts for structures, trucks, vehicles, etc., (f) shaping and preparation of metal parts of machinery and precision tools, vehicles and equipment by turning them over lathes, (g) painting over metal and wood work, (h) manufacture of iron and steel furniture, safes, locks and trunks, (i) iron and brass foundry work, and (j) iron and steel smelting and steel rolling. It may be mentioned that a foundry is generally a part of almost every general engineering workshop and that most foundries maintain a general engineering section like a machine-shop with a few lathes.

The following table shows the extent and location of industries in 1939 and 1943.

TABLE 5.

Factories and Workers in Provinces.

Province.		General Engineering				Steel, Trunk, Lock & Cutlery.		Foundries.		Iron & Steel Smelting & Steel Rolling Mills.	
		Government & Local Fund.		All other factories.							
		1939	1943	1939	1943	1939	1943	1939	1943	1939	1943
Madras	F	9	11	18	47	..	1	13	24	2	2
	W	1,115	1,453	2,172	5,840	..	38	688	993	128	429
Bombay	F	6	9	142	218	12	13	28	36	..	..
	W	1,383	3,919	5,384	13,632	1,338	2,150	1,046	2,252	..	..
Bengal	F	10	13	162	274	..	..	..	..	6	16
	W	1,912	6,469	25,480	54,502	..	..	..	..	16,914	22,277
U. P.	F	6	10	15	40	1	2	12	14	8	19
	W	589	2,858	1,332	2,807	556	438	527	760	426	3,836
Punjab	F	5	6	20	124	..	..	46	87	..	..
	W	920	1,272	1,255	7,671	..	..	1,554	5,370	..	..
Bihar	F	5	5	17	28	..	..	3	3	3	5
	W	672	1,672	4,853	5,475	..	..	1,983	2,042	23,322	34,235
Other Provinces.	F	11	29	34	105	..	..	8	9	..	4
	W	1,154	5,743	2,125	7,914	..	..	268	465	..	167
Total	F	52	83	408	836	13	16	110	173	19	46
	W	7,745	22,386	42,601	97,841	1,894	2,626	6,066	11 882	40,790	60,944

F = No. of factories; W = No. of workers employed.

Samples Investigated.—The main idea in the selection of units was to make the survey as representative of the whole industry as possible. In all, 65 factories were investigated in six Provinces and two Indian States. Details in regard to the factories investigated are given in the following table.

TABLE 6.

Number of Factories Investigated.

Province or State.	Number of Factories investigated in				Total number of workers covered.
	General Engineering.	Steel, Trunk Lock and Cutlery.	Foundries.	Iron & Steel smelting.	
Madras	36	..	3	..	1,949
Bombay	16	2	..	..	8,411
Bengal	16	..	1	5	39,580
U. P.	3	..	..	..	4,019
Punjab	2	..	3	..	1,062
Bihar	1	..	1	2	36,770
Baroda	3	..	..	..	492
Mysore	..	..	..	1	3,615
Total ..	47	2	8	8	95,898

Of the 47 general engineering factories, only 8 (Madras, 3 ; Bombay, 3 ; Bengal 1 and Mysore, 1) were Government and Local Fund factories. Most of the factories are situated in urban localities. As an illustration the following figures from Factory Statistics for Bombay City and Bombay Province may prove useful.

TABLE 7.

Factories in Bombay City and Province, 1943.

	General Engineering.		Steel, Trunk, Lock and Cutlery.	
	Factories.	Workers.	Factories.	Workers.
Bombay City. { Govt. & Local Fund factories	5	3,656	..	..
Bombay City. { All other factories ..	99	8,971	8	2,051
Bombay Province { Govt. & Local Fund factories	9	3,919	..	..
Bombay Province { All other factories ..	218	13,632	13	2,150

Most of the units selected for investigation are from urban areas as follows :

TABLE 8.

Location of Factories.

Province or State.	No. of units investigated.	Names of centres and the No. of units (in brackets).
Madras	9	Madras (9).
Bombay	18	Bombay (14), Poona (2), Ahmedabad (1), and Bhiwandi (1).
Bengal	22	Calcutta & Howrah (19), Kulti (2), and Burnpur (1).
U. P.	3	Cawnpore (3).
Punjab	5	Lahore (5).
Bihar	4	Tatanagar (4).
Baroda	3	Baroda (2), and Navsari (1).
Mysore	1	Bhadravati (1).

The data given in the table below show that, though a large number of factories were established during the period intervening between the two World Wars, a considerable number had come into existence earlier. The oldest factory among those investigated was established in 1799, while three factories were founded during 1858—1860.

TABLE 9.

Dates of Establishment.

Province or State.	No. of concerns.	Number of factories established						
		before 1800.	1801 to 1860.	1861 to 1900.	1901 to 1913.	1914 to 1918.	1919 to 1937.	1938 and after.
Madras	4	..	..	1	..	1	2	..
Bombay	16	..	2	4	3	3	2	2
Bengal	18	1	1	2	1	3	6	4
U. P.	3	..	..	..	..	..	2	1
Punjab	6	..	..	..	1	..	5	..
Bihar	4	..	..	..	1	..	3	..
Baroda	3	..	..	..	..	1	..	2
Mysore	1	..	..	..	..	..	1	..
Total ..	55	1	3	7	6	8	21	9

Most of the factories started as small workshops, which gradually grew in size and importance. For a number of years in the early stages they were so small as to fall outside the scope of the Factories Act. The dates of establishment and of coming under the Factories Act given in the following table illustrate this.

TABLE 10.

Establishment of Factories and Application of Factories Act.

(Based on figures of 6 Bengal factories).

Unit.	Date of Establishment.	Date of coming under Factories Act.
I	1865	1910
II	1916	1928
III	1919	1920
IV	1922	1936
V	1932	1937
VI	1938	1939

I. Employment.

The following table, compiled from the Factory Statistics, shows that both the number of factories and of workers has considerably increased since 1939 and in some by as much as 100 per cent.

TABLE 11.

Factories and Workers.

Industry.	Factories.			Workers.		
	In 1939.	In 1943.	Increase. %	In 1939.	In 1943.	Increase. %
General Engineering ..	460	919	100	50,340	120,227	139
Steel, Trunk, Lock and Cutlery	13	16	23	1,894	2,626	39
Foundries	110	173	57	6,066	11,882	96
Iron & Steel smelting and Steel rolling	19	46	142	40,790	60,944	49
Total ..	602	1,154	92	99,096	195,679	97

Figures collected in the course of *ad hoc* surveys also show marked increase in employment during the war.

TABLE 12.

Employment in the Sampled Factories.

	No. of factories.		No. of Workers.	
	1939	1944	1939	1944
Madras	9	9	1,339	1,949
Bombay	14	18	3,253	8,411
Bengal	16	22	22,742	39,580
U. P.	2	3	561	4,019
Punjab	3	5	410	1,062
Bihar	4	4	30,640	36,770
Baroda	1	3	67	492
Mysore	..	1	..	3,615
Total ..	49	65	58,924	95,898

On the whole, it was found that employment in private concerns increased substantially, while employment in Government and Local Fund factories declined. Out of the 49 factories, which supplied figures for 1939 and 1944, only 13 show a decrease in employment figures. Of these 13 concerns, 4 are Government and Local Fund factories. Increase in employment in most of the factories during the war was obviously due to the stepping up of production and of the maximum utilisation of all available plants. Employment and activities in these concerns might have expanded to a larger extent, had it not been for the shortage in technical personnel, machine tools, coal and iron and steel products.

The number of workers in the sampled factories varies from 13 in one to 28,477 in another. As the table below shows, only four factories have more than 4,000 workers each, while the majority of factories have less than 500 workers, usually between 50 to 300.

TABLE 13.

Extent of Employment.

Area.	Year.	No. of concerns in which the No. of workers was						
		less than 50	50–150	151–500	501–1,000	1,001–2,500	2,501–4,000	Over 4,000
Madras	1939	..	6	3	..	..	..	..
	1944	2	4	1	2	..	..	..
Bombay	1939	3	6	3	1	1	..	..
	1944	1	3	7	2	3	2	..
Bengal	1939	3	4	2	3	1	1	2
	1944	1	7	2	2	6	1	3
U. P.	1939	..	..	2	..	..	..	..
	1944	..	..	2	..	..	1	..
Punjab	1939	..	2	1	..	..	..	..
	1944	2	1	1	1	..	..	..
Bihar	1939	..	..	..	..	2	1	1
	1944	..	..	..	..	1	2	1
Baroda	1939	..	1	..	..	..	..	..
	1944	1	..	2	..	..	..	..
Mysore	1944	..	..	..	..	..	1	..
Total ..	1939	6	19	11	4	4	2	3
	1944	7	15	15	7	10	7	..

Female and Child Labour.—The number of female and juvenile labour, as shown in the table given below, is small, because engineering is a heavy and skilled industry, necessitating the employment of adult male labour.

TABLE 14.

Female Labour.

Province or State.	No. of factories employing female labour.		No. of women employed.		Percentage increase or decrease in number of workers. %
	1939	1944	1939	1944	
Bombay	4	5	54	361	+ 569
Bengal	4	4	320	212	— 34
Punjab	*Nil.*	1	*Nil.*	4	..
Bihar	4	4	4,028	4,564	+ 13
Mysore	..	1	..	103	..
Total ..	12	15	4,402	5,244	+ 15

Note :—No female labour was found in Madras, U. P., and Baroda factories.

Female workers, mostly unskilled, are employed as coolies or sweepers. In two of the factories investigated in Bombay, the proportion of female labour to the total number of workers in January 1944, was 11 per cent. and 31 per cent. A distinctive feature of these two concerns was that most of this labour was skilled or semi-skilled ! Female workers, almost all young Christian unmarried girls, work as test-clerks in the Assembly Department or as winders in the Electrical Winding Department.

Only three factories, one each in Bombay, Bengal and Bihar, employ children, but the number of children in each of the first two factories is less than 5. The Bihar factory employed 163 and 374 children in 1939 and 1944 respectively, showing an increase of 129 per cent. These children work as office boys and peons. Though the employment of children elsewhere is uncommon, boys (mostly adolescents certified to be adults) are employed in a number of concerns, especially in Madras and Bengal. In Bengal, boys or young trainees occupy a vital position in the small undertakings, which are usually unregistered and unregulated concerns producing various machine parts and simple tools or other equipments. Children are obviously employed because they cost less than adults. Usually they are made to work long hours, even exceeding those prescribed by the Factories Act on the plea that they are not working in the factory but are being trained in different jobs ! They are generally made to work under contractors, who are held responsible for their work. In these days of high cost of living, it is not unnatural for boys to go over to other places for better wages. After getting some training, therefore, they migrate from place to place under the duress of necessity.

Piece-rated Labour.—The factories investigated in Madras, U. P. and Mysore had all time-rated labour. The extent of piece-rated labour in other factories is shown below :

TABLE 15.

Piece-rated Labour.

Province or State.	Number of factories employing piece-rated Labour.		Number of piece-rated workers employed.	
	1939	1944	1939	1944
Bombay	2	3	28	69
Bengal	4	6	1,471	3,211
Punjab	..	1	..	21
Bihar	2	2	216	437
Baroda	1	1	38	131
Total ..	9	13	1,753	3,869

Contract Labour.—Contract labour is more prevalent in Bengal and U. P. than in other Provinces. It is usual for a number of concerns to give some items of work on contract to other workshops or to private contractors, and hence there is considerable fluctuation in the volume of contract labour. For example, in one of the Bombay concerns, 30 workers, who were Chinese fitters, were employed and paid through contractors for a short period in 1944 and were later put on time rates. Contract work was thought to be indispensable by some of the concerns, because of urgent war work necessitating immediate employment of a large labour force and lack of adequate staff to supervise such a large force. The extent of contract labour in the factories investigated is given below :

TABLE 16.

Contract Labour.

		Madras	Bombay.	Bengal	U.P.	Punjab	Bihar	Total
(i) No. of factories employing contract labour	*1939*	1	1	3	2	..	1	8
	1944	1	2	8	3	1	1	16
(ii) Employed and paid through contractors	*1939*	64	18	353	68	..	183	686
	1944	50	50	2,410	215	200	318	3,243
(iii) Employed through contractors but paid directly	*1939*	..	25	164	..	..	..	189
	1944	..	48	871	23	..	..	942
(iv) Total contract Labour	*1939*	64	43	517	68	..	183	875
	1944	50	98	3,281	238	200	318	4,185

Female labour employed by contractors was found only in the Bihar factory and in one of the Bengal factories. The Bihar factory's contractor employed 48 and 148 female workers in August 1939 and January 1945 respectively ; the Bengal factory's contractor employed only 38 females in January 1944. Workers employed through contractors are generally blacksmiths, moulders and coolies.

Length of Service.—The following figures about length of service show the effect of war-time expansion in the industry. The figures were available only for 41 factories.

TABLE 17.

Length of Service.

Province or State.	No. of concerns.	Workers.	Workers with continuous service of			
			Less than one year.	1—5 years.	5—10 years.	Over 10 years.
Madras	7	Number	338	187	109	432
		%	32	18	10	40
Bombay	12	Number	2,836	4,687	509	687
		%	32	54	6	8
Bengal	13	Number	8,638	11,522	4,558	2,461
		%	32	42	17	9
U. P.	3	Number	1,717	2,060	11	6
		%	45	55	..	..
Bihar	4	Number	3,859	15,880	10,391	17,295
		%	8	33	22	37
Baroda	2	Number	169	109	..	..
		%	61	39	..	..
Total ..	41	Number	17,557	34,445	15,578	20,881
		%	20	39	18	23

Generally, it was found that in the concerns owned by public bodies labour was more stable than in the private concerns. Some of the long standing private concerns, however, are exceptions. In a few cases, a number of workers were replaced on account of strikes or after the 1942 evacuation.

Permanent and Temporary Classification.—The practice of classifying workers as permanent and temporary is found mainly in public concerns and in well-established private concerns. As the following figures show, only 22 out of the 65 factories have a regular classification. Others do not classify their workers properly though some of them treat all their workers either as temporary or as permanent.

TABLE 18.

Classification of Workers.

Province or State.	Number of concerns whose workers are				Percentage of permanent workers.		
	Not classified.	All temporary	All permanent	Classified.	Maximum	Minimum	Average.
Madras ..	..	4	..	5	21 %	75 %	51 %
Bombay ..	5	4	4	5	3 %	77 %	36 %
Bengal ..	10	3	5	4*	..	..	65 %
U. P. ..	..	2	..	1	..	..	87 %
Punjab ..	..	2	1	2	20 %	90 %	55 %
Bihar ..	1	..	..	3	62 %	94 %	82 %
Baroda ..	2	..	..	1*	..	..	50 %
Mysore ..	..	..	..	1*	..	..	..

*The figures about percentage of permanent workers of three Bengal factories and the Mysore factory were not available.

The privileges of permanent workers, such as leave, notice on termination of service, benefit of Provident Fund, etc., are similar to those in other branches of engineering.

Apprenticeship.—Out of the 65 concerns investigated, apprenticeship system was found to be in existence in 39 concerns (Madras, 5 ; Bombay, 11 ; Bengal, 15 ; U. P., 1 ; Punjab, 3 ; Bihar, 3 and Mysore, 1). In 20 of these concerns (Madras, 2 ; Bombay, 8 ; Bengal, 6 ; Punjab, 3 and Mysore, 1), however, the system is rather irregular. They train a few learners for some ordinary or technical jobs. In Madras, for example, two concerns recruit young men for being trained as machinemen, moulders, etc. During the period of training, no wages are paid, but soon after the young man acquires some skill, say, in six months, he is put on daily wages. A certain proportion of workers thus trained are absorbed in the concern, while a large number go out for jobs elsewhere. Nearly 70 persons were trained in the two concerns during the last five years, of whom 16 are at present working in the concerns. Similary in a Bombay concern, the apprentices do not receive any pay during the training period of three months. After that they start on the same pay as is given to technical personnel in the third grade. In another Bombay concern, there are at present four apprentices of whom two have 2½ years' experience and are classed as ' advanced '. The advanced apprentices get Rs. 30 p. m., while the other two get Rs. 15 p. m. One of the two advanced apprentices attends the V. J. Technical Institute and his fees are borne by the factory. In a third Bombay factory, there are two learners, whose attendance is not compulsory and who are paid only Rs. 5 or Rs. 10 for their conveyance. The Mysore factory takes engineering graduates and diploma-holders and trains them in six months ; during this period, they are paid from Rs. 50 to Rs. 60 p. m. Boys belonging to workers' families, are also trained for some time and are absorbed as workers.

The details of the apprenticeship system in the other 19 concerns are given below.

TABLE 19.

Apprenticeship System.

Province and concerns	Nature of the System.	Apprentice period (in years).	Remuneration in— 1st yr. 2nd yr. 3rd yr. 4th yr. 5th yr.
Madras			
I, II & III	For students from Govt. School of Technology, studying for L.M.F. Diploma.	5	*Nil* in 2 concerns; in III .. 4 as. 5 as. 6 as. 8 as. p.d.
IV	Training for non-workers ..	5	Rs. 10 15 20 25 p.m.
V	For Supervisory posts	5	Re. 1 — 1 — 1½ — 1½ — 1½ p.d.
Bombay I	Company's apprentices ..	5	As. 8 As. 12. Re. 1 Rs. 1½ Rs. 1½ p.d.
II	(*a*) For supervisory posts ..	5	*Nil* for 6 months; then grade of Rs. 1—¼—1½.
	(*b*) Ordinary or Trade Apprentices	5	As. 12 to Rs. 1-8-0 p.d.
III	(*a*) Graduate Apprentices (University).	2½	Rs. 65 to Rs. 130 p.m.
	(*b*) Graduate University Apprentices (Technical).	1½	Rs. 55 to Rs. 90 p.m.
Bengal			
I	(*a*) 'A' class (for Science graduates).	3	Rs. 30-35-40 .. .. p.m.
	(*b*) 'B' class (for Matriculates)	5	Rs. 15–20–23–26–30– p.m.
	(*c*) 'C' class (ordinary apprentices)	5	As. 6 – 7 – 9 – 10 – 12 p.d.
II	For ordinary posts	5	Rs. 20 – 23 – 26 – 29 – 32 p.m.
III	(*a*) Indentured apprentices' ..	6	Figures not available.
	(*b*) Trade apprentices	3	
	(*c*) Draughtsmen Improvers ..	3	
	(*d*) Improvers (2nd & 3rd year students)	½ to 1	
IV	(*a*) For Supervisory posts (for Matriculates).	5	Subsistence allowance.
	(*b*) Ordinary posts	3 to 5	Rs. 7-8-0 p.m. + D.A. Rs. 10 p.m.
V	Practical training for Calcutta Technical School students.	5	Rs. 15 – 20 – 25 – 30 – 40 p.m.
VI	For ordinary posts	½	*Nil* for 2 months & then Rs. 2.
VII	Do.	6	Rs. 10 and then increment of Rs. 2-3-0.
VIII	Do.	½	Rs. 10 from 2nd month.
IX	Do.	5 to 6	As. 4 to As. 8 a day.
U. P. I	For Supervisory Posts ..	5	*Nil* for 3 months, then Rs. 50 – 75 – 90 – 105 – 120 p.m.
Bihar I	(*a*) Graduate Apprentices (for Engineering Degree or Diploma holders).	..	Rs. 75 p.m.
I & II	(*b*) 'c' class Apprentices (Administrative qualification—Middle English standard).	5	Grade of Rs. 1½–2 As. – Rs. 2 p.d.
	(*c*) Trade apprentices .. .. Do.	2	Grade of As. 14–2 As. Rs. 1½ p.d.
II	(*a*) Apprentices	5	Grades of As. 8 – 2 As.–Re. 1 p.d.
III	Trained as fitters, turners and electrical mistris.	3	Grade of As. 12 – 4 As.–Rs. 1½ p.d.

Except in one or two cases, the apprenticeship period is counted towards total service. In a number of cases, however, the apprentice does not get any guarantee of being absorbed in the concern, after his apprenticeship period is over.

Labour Turnover.—The figures of labour turnover are vitiated by a number of factors. In one of the Punjab foundries, for example, almost all the workers had to be turned out once in 1944 at the time of closing down the factory. A Madras factory, which specialises in casting tobacco furnaces and parts of sugar cane crushing mills, employs additional men during the six-monthly period from September to February every year. These men are employed on a temporary basis and form about 40 per cent. of the regular number employed. Subject to such limitations, the figures given below give a broad picture of the labour turnover in the concerns investigated.

TABLE 20.

Labour Turnover.

Province.	A month in the year.	No. of factories.	Average daily No. of workers.	Number of workers who left				Percentage of monthly labour turnover.
				Retired	Dismissed	Vol. left.	Total	
Madras	1944	8	1,496	2	7	34	43	3 %
Bombay ..	1941	1	68	..	..	3	3	4 %
	1943	5	3,870	1	60	30	91	2 %
	1944	10	3,628	..	41	102	143	4 %
	1945	1	1,998	..	3	22	25	1 %
Bengal .. :	1939	2	775	..	..	1	1	..
	1943	6	6,961	25	45	195	265	4 %
	1944	2	1,934	..	19	98	117	6 %
U. P.	1939	1	206	..	3	2	5	2 %
	1944	1	1,916	..	19	2	21	1 %
Punjab	1944	1	801	..	13	70	83	10 %
Bihar	1939	3	34,509	2	34	17	53	..
	1943	1	36,200	2	106	13	121	..
	1944	3	7,560	2	73	29	104	1 %
Baroda	1943	2	230	..	2	5	7	3 %
Mysore	1945	1	3,615	2	29	5	36	1 %

In general, the turnover in this industry appears to be small. It is negligible in the concerns owned by Government or public bodies, because labour in these concerns has been definitely settled in the industrial areas for many years, has no village nexus and is not migratory at all. The labour turnover in this industry has been reduced also because of the Essential Services (Maintenance) Ordinance which prevents workers from going from one concern to another. The figures in the above table show that labour turnover is mainly due to dismissals and resignations. The reasons for dismissals are shortage of work on account of non-availability of raw materials and war orders, absence without leave, breach of discipline, etc. Out of 42 dismissals in 1943 in a Bombay concern, 24 were due to absence without leave and the remaining 18 for causing damage to property. The number of dismissals in a Bombay Government factory was high (21 in July 1943), because of a rule which automatically discharges a worker, if he is absent for more than 5 days.

The common reasons for resignations are better prospects elsewhere which are readily available during these days of scarcity of skilled or semi-skilled labour, illness, visits to native places, etc. Most of the workers, who voluntarily leave the factory, do not give any reasons. Out of 88 persons who left a Bombay factory in 1943, only 7 workmen resigned due to continued illness, while the remaining 81 workers left without giving any reasons.

Absenteeism.—There has been little uniformity in the absenteeism figures supplied by the units investigated. The following table gives figures only for 18 units in Madras, Bengal and Mysore.

TABLE 21.

Absenteeism in Madras, Bengal and Mysore.

Province.	Month & Year	No. of units	Total No. of estimated man-days.	No. of man-days lost by absenteeism.	Percentage of absenteeism.		
					Average	Maximum	Minimum
Madras	Jan. 1944	9	39,615	5,680	14·3 %	29·1 %	2·8 %
Bengal	1939	8	4,40,801	19,512	4·4 %	32·7 %	1·2 %
	1943	8	7,08,084	67,008	9·5 %	39·3 %	2·3 %
Mysore ..	March 1945	1	93,990	721	0·8 %	..	..

The following percentage figures about factories in other Provinces and States are in a number of cases not very accurate. They may, however, serve to show, at least broadly, the extent of absenteeism among the workers.

TABLE 22.

Absenteeism in Bombay, U. P., Punjab, Bihar and Baroda.

Province and Concerns.	Period.	Percentage of absenteeism.	Province and Concern.	Period	Percentage of absenteeism.
Bombay			U. P.		
I	Oct. 1944	12 %	I	1944	20 %
II . .	1939	5·9 %	II . .	1939	11 %
	1943	8·3 %		1944	19 %
III . .	1939	12 %	III	1944	5 %
	1944	10 %	Punjab I	1944	10 %
IV . .	1943	3·8 %	II . .	1944	21·1 %
V . .	Jan. 1944	10 %	Bihar I	1939	12·2 %
VI . .	Oct. 1944	9 %		1944	11·5 %
VII .	Aug. 1939	7%	II	1939	15·3 %
	Aug. 1944	13 %		1944	19·9 %
			Baroda I	1943	9 %

Absenteeism is generally lower in concerns owned by Government and Local Bodies than in those owned by private bodies. An analysis of the Madras figures given below bears out this statement.

TABLE 23.

Absenteeism in Madras, in January 1944.

Factories.	No. of units.	Total No. of estimated man-days.	No. of man days lost by absenteeism	Percentage of absenteeism.		
				Average	Maximum	Minimum
Government ..	3	9,666	545	5·6 %	8·5 %	2·8 %
Private	6	29,949	5,135	17·2 %	29·1 %	11·9 %

The above tendency is explained by the fact that leave rules and dearness allowance are more liberal in the public as compared to private concerns. There is also the attraction of the " Saturday bonus " of two hours' wages which a worker loses even if he is absent for one day in the week.

The percentage of absenteeism varies from category to category as can be seen from the following figures for a few occupations in a Government factory in Bombay. The percentages of absenteeism, maximum and minimum, are for the months of June, July and August 1943.

TABLE 24.

Percentage of Absenteeism in a Bombay Factory.

Category of workers.	Percentage of absenteeism.	
	Maximum	Minimum.
Draughtsmen, Tracers, etc.	4 %	3 %
Fitters & Turners	17 %	14 %
Blacksmiths	20 %	2 %
Pattern makers	25 %	3 %
Painters	38 %	18 %
Wire Drawing Machine Operators	3 %	1 %
Learners	8 %	3 %
Coolies	3 %	1 %
Sweepers	21 %	6 %

The following figures are from a Bihar factory.

TABLE 25.

Absenteeism in a Bihar Factory.

Category of workers.	Percentage of absenteeism.	
	1939	1944
Skilled workers	15·7 %	15·85 %
Coolies	16·44 %	17·62 %
Rejas	13·8 %	26·27 %

The absenteeism varies according to seasons and months also. A U.P. factory has 20 to 25 per cent. absenteeism in summer and 15 to 20 per cent. absenteeism in winter. In a Bihar factory, absenteeism is highest during the months, March to July when employees go to villages for the harvest-cum-marriage season. The following figures from a Bombay factory show that absenteeism is high during this season and at the time of Holi and Diwali holidays.

TABLE 26.

Absenteeism month by month
(in a Bombay Factory)

Month.	Percentage of absenteeism.		Month.	Percentage of absenteeism	
	1939	1943		1939	1943
January	3·0 %	7·7 %	July	7·8 %	7·2 %
February	4·6 %	9·3 %	August	6·1 %	5·6 %
March	7·0 %	12·3 %	September ..	11·5 %	3·5 %
April	4·5 %	19·3 %	October	5·2 %	5·7 %
May	4·2 %	10·2 %	November ..	6·3 %	6·0 %
June	7·4 %	5·7 %	December ..	2·8 %	6·9 %

The main causes of absenteeism are sickness, domestic needs and religious and social ceremonies. The worker in war time often takes up short period work under contractors to get high wages. Besides, in many concerns, if the worker is late by more than half an hour, he is shut out. A Bihar factory gives the following causes.

TABLE 27.

Causes of absenteeism in a Bihar factory.
(Figures indicate the percentages of total labour force).

Year.	Cause of absenteeism.							
	Sickness.	Accident.	Leave.	Festival leave.	Suspension.	Off against Sunday work.	Of own accord.	Total.
1939	3·13 %	0·47 %	4·89 %	0·4 %	0·02 %	1·47 %	1·83 %	12·21 %
1944	2·97 %	0·54 %	4·94 %	0·47 %	0·1 %	0·8 %	1·69 %	11·51 %

Standing Orders.—In all, 20 factories (Madras, 4 ; Bombay, 8 ; Bengal, 1 ; U.P., 3 ; Punjab, 1 ; Bihar, 2 ; and Mysore, 1) have Standing Orders or Service Rules for their workers. Out of these 20 factories, 8 are owned by Government or Local Bodies and the industrial relations therein are governed by service rules framed by Local Bodies or by Government orders published in the Provincial Government Gazette from time to time. Besides these 8 concerns, 3 private factories (Bombay, 2 and Punjab, 1) have a few Rules mainly dealing with recruitment, discipline and termination of service. In a number of Bengal factories usually a contract form has to be signed by every worker, who is expected to abide by the rules prescribed by the Management. The only workshop, which claims to have service rules, maintains a Service Sheet for every individual employee. Neglect of duty, insubordination, commendation for good service and any other matter which the District Engineer thinks ought to be recorded in the Service Sheets are noted therein. All the three concerns investigated in U. P. are members of the Employers' Association of Northern India and adhere to the rules and regulations framed by the Association in consultation with the U. P. Labour Commissioner.

Recruitment and Labour Officers.—As we have seen previously, in 16 of the concerns investigated some specific jobs are given to contractors, who carry them out with their own labour. Only in 3 of these 16 concerns, workers are employed through contractors but paid directly. However, even in these concerns, as in all others investigated, the system of direct recruitment is in vogue. In Madras, recruitment through the Employment Exchange has been made compulsory for public concerns. A number of private concerns are, however, not satisfied with the present working of the Exchanges and hence are reluctant to utilise them for recruitment. In Bombay, out of the 18 units surveyed, only three recruited some labour through the Exchanges. In one of the factories, which has about 350 workers, only about 15 technicians were recruited through the Exchange. A Bengal factory and the Mysore factory have a selection board for recruitment. The Appointment Board of the Bengal factory consists of a chairman and two members through which labour is finally appointed after a preliminary selection by the Department *Maistries* at the factory gate. Workers sent through the National Service Labour Tribunal are also required to obtain the final approval of this Appointment Board. In the Mysore factory, labour is recruited by a Committee with the General Manager as the President, the Labour Officer as the Secretary and the Medical Officer as a member. Posts carrying a salary of less than Rs. 30 p.m. are filled up on the recommendation of the Committee. All jobs above Rs. 30 and up to Rs. 50 p.m. are filled up by the General Manager himself and appointments to higher posts are made by the Chairman of the Works on the recommendation of the General Manager. Generally, larger establishments maintain a Labour Bureau, where applications are filed and registered and workers recruited after being examined.

Labour Officers have been appointed only by 13 concerns (Bombay, 2 ; Bengal, 6 ; U. P., 1 ; Bihar, 3 ; and Baroda, 1 ;). Their duties are to deal with complaints regarding wages, fines and such other conditions of employment. Sometimes they have to look after recruitment also. In factories, which have no Labour Officers, this work is taken up by the *maistries* or foremen of various departments or by the Works Manager or Manager or by the Director. One of the U. P. factories has a ' Hitkari ' (Welfare) Committee, which investigates into the complaints lodged by the workers. Members of this Committee include members elected by workers from amongst themselves.

II.—Wages and Earnings.

Wage-rates and Gross Earnings.—The rates vary from Province to Province and hence are given separately. The main topics on which detailed information is given in the following paragraphs are graded or time-scale promotion, changes in wages since 1939, wages of contract labour and rates of basic wages and gross earnings for various occupations.

A.—Madras.

In many concerns, the minimum and the maximum rates payable to different categories are fixed. The level at which a particular worker starts and the increments given on occasions are both decided at the discretion of the employer. Increments may be given once a year or once in two years or whenever the management finds it necessary to do so. In one case increments were given thrice during the year 1944 and once at the beginning of 1945. In the three public concerns, however, promotion is based on time-scale. In one of them, the minimum and maximum for each occupation are fixed and within this grade an increment of one anna per calendar year is given provided work and conduct are satisfactory. In another, occupations are divided into grades, varying from two to four, the first grade being the highest. (For instance, turners have four grades I, Rs. 1-7-0 to Rs. 1-10-0 ; II, Rs. 1-1-0 to Rs. 1-6-0 ; III, Re. 0-12-0 to Re. 1 per day and a special grade of Rs. 1-11-0 to Rs. 2 per day). In each occupation, the number of places in each grade is fixed from time to time and promotion from grade to grade can take place only when a vacancy arises. Increments are given within the grade at the rate of one anna biennially. In the third public concern, workers are divided into two classes : unskilled and skilled. Unskilled workers are divided into two grades, the second grade getting 8 as. to 10 as. per day and the first 11 as. to 12 as. per day. Skilled workers are divided into four grades : (i) 9 as. to Re. 1 p. d. ; (ii) Re. 1-1-0 to Rs. 1-8-0 p. d. ; (iii) Rs. 1-9-0 to Rs. 1-13-0 p. d. and (iv) Rs. 1-14-0 to Rs. 2 p. d. Within the grade, an annual increment of one anna is given. Those who have reached the maximum of their grades are given a final increment of half an anna. Among private concerns, one factory has a definite system of grading and increment. At start, a worker is called a ' boy ' and is paid 8 as. a day ; the next grades are those of the " learner " at as. 12 a day, first grade at Rs. 1-6-0 p. d. and technician at Rs. 1-12-0 p. d. Promotion from grade to grade is not according to the length of service, but according to efficiency as judged by the management. Apart from the grades, every worker gets an increment of one per cent. per year of service which is carried on even after a worker is promoted from a lower grade to a higher grade.

As mentioned already, there is no contract labour in any except in one concern. In this concern, the rates paid by contractors are generally the same as those paid by the concern itself and the disbursement of wages by contractors is supervised by the management to avoid fraud. In fact, it is said that the contractor pays higher rates than the concern when urgent work has to be done.

The rates of wages have remained the same as fixed in 1939 in the public concerns and some private concerns and dearness allowance is being p. d to

compensate for the rise in the cost of living. A few concerns have changed the wage rates, some of which are given below.

TABLE 28.

Wage rates in 1939 *&* 1940 *and in* 1944 *in Madras* (*in* 3 *private concerns*).

Occupation.	Unit.	Minimum rates.		Percentage increase.	Maximum rates.		Percentage increase
		1939-40	1944		1939-40	1944	
Blacksmith ..	I	0 12 0	1 0 0	33⅓ %	1 4 0	1 4 0	*Nil.*
	II	..	..	..	1 8 0	2 0 0	33⅓ %
Carpenter ..	I	0 5 7	1 5 0	400 %	1 7 0	2 0 0	39 %
	II	0 10 0	0 10 0	*Nil.*	1 8 0	4 8 0	200 %
Cooly	I	0 7 0	0 15 0	114 %	..	..	..
Moulder ..	I	0 8 0	1 4 0	150 %	1 2 0	1 14 0	66·6 %
	II	0 8 0	0 10 0	25 %	0 12 0	2 12 0	266·6 %
	III	0 3 0	0 6 0	100 %	1 14 0	2 0 0	6·3 %
Hammerman ..	III	0 10 0	0 15 0	50 %	..	..	..
Turner	I	0 14 0	1 2 0	28·6 %	1 13 0	2 2 0	17·2 %
	III	0 12 0	1 0 0	33⅓ %	0 7 0	2 2 0	48 %
Driller	II	0 12 0	1 0 0	33⅓ %	0 14 0	1 5 0	50 %
	III	..	..	..	0 12 0	0 15 0	25 %
Fitter	III	..	..	..	1 4 0	2 4 0	80 %

The cases of large rise are mostly in those concerns and those categories where workers were very much underpaid before the war, and where rates had to be raised to retain the existing employees.

The following table gives details of maximum, minimum and average basic wage rates per day, maximum, minimum and average monthly earnings and average daily earnings of the principal categories of such workers in each group as have worked for the same number of days in the month of January 1944. Some of the categories may overlap to a certain extent because there is no uniformity in classifying workers in the different concerns. For example, some concerns include rivetters among blacksmiths, others include patternmakers among carpenters and in some cases several categories are put under the general term " machine men ". There is also some difficulty due to the same category being called by different names as coolies, helpers, attendants, boys, etc. Some concerns put the heads of sections as *Maistries* or supervisors separately, whereas in others these are mixed up with the general categories. In spite of these difficulties, the wage data collected are of considerable significance and interest, because there is not much difference between the ranges of the wages of skilled workmen in the several categories.

TABLE 29.

Wages and Earnings (in Rs.) in Madras.

Occupation.	No. of units	Basic wages earned.			Gross Earnings.			Average daily earnings.
		Maximum	Minimum	Average.	Maximum	Minimum	Average.	
Blacksmiths ..	8	1 9 0	0 14 0	1 2 11	55 15 6	22 8 0	31 4 11	1 7 8
Carpenters ..	7	3 8 0	0 6 0	1 6 1	58 11 0	31 3 0	36 4 0	1 11 7
Coolies	7	0 15 0	0 6 0	0 10 4	35 8 0	7 11 0	18 7 2	0 14 9
Cleaners	3	1 4 0	0 9 6	1 0 0	27 14 6	17 4 9	23 12 9	1 2 4
Drillers	3	1 8 0	0 10 0	1 1 2	34 8 0	22 8 11	25 1 4	1 4 7
Electricians ..	1	..	..	1 5 6	..	..	54 2 9	2 4 1
Fitters	9	2 2 0	0 8 0	1 4 6	59 13 6	17 6 0	33 15 2	1 8 6
Fireman & Furnacemen	2	1 4 0	0 14 6	1 1 3	32 15 3	32 1 0	32 8 2	1 7 3
Hammermen ..	5	1 2 0	0 12 0	0 14 8	33 10 6	25 4 10	30 13 11	1 5 10
Machinemen & Turners	9	2 2 0	0 6 0	1 5 6	74 7 3	19 11 0	37 9 3	1 11 5
Mistries	4	2 10 0	1 0 0	1 13 9	60 6 0	32 14 1	50 13 11	2 5 4
Markers	3	1 15 0	1 0 0	1 5 4	54 12 4	32 14 1	45 14 0	2 0 6
Moulders	7	2 0 0	0 10 0	1 4 6	51 0 0	16 8 0	30 13 0	1 7 5
Painters	3	1 8 0	0 10 0	1 1 2	38 2 0	22 15 0	32 12 11	1 8 1
Patternmaker ..	1	1 10 0	0 9 0	1 12 0	43 0 0	43 0 0	43 0 0	2 0 0
Rivetters	4	1 10 0	0 9 0	1 1 4	48 14 3	15 6 0	31 2 8	1 6 0
Serangs	1	1 3 6	1 3 0	1 3 3	44 4 9	40 13 9	42 9 3	1 12 5
Template makers ..	1	0 12 0	0 10 0	0 11 4	25 14 8	23 6 11	24 4 9	1 1 3
Tinkers	1	1 8 0	1 3 0	1 5 6	41 11 0	32 8 6	37 1 9	1 11 0
Welders	5	2 12 0	0 12 0	1 14 9	66 10 6	16 8 9	50 3 2	2 4 9
Boilermaker ..	1	1 6 0	1 0 0	1 2 8	44 14 5	33 8 0	39 3 10	1 11 10

The ranges of rates given above differ from those announced by the concerns in their rate schedules, as can be seen from the figures given below.

TABLE 30.

Ranges of Announced, Actual and Average Wage-rates and Average Earnings, Madras.

Occupation.	Rates announced.		Basic rates actually given.		Range of average basic daily rates.		Range of average daily earnings.	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Blacksmith, ..	2 0 0	0 12 0	1 9 0	0 14 0	1 5 0	1 0 0	1 13 1	1 3 3
Carpenter ..	2 0 0	0 12 0	3 8 0	0 6 0	1 12 6	0 14 6	2 4 1	1 2 9
Coolies	1 0 0	0 7 0	0 15 0	0 6 0	0 12 5	0 8 5	1 3 7	0 8 5
Drillers	1 10 0	0 8 0	1 8 0	0 10 0	1 4 9	0 11 10	1 9 1	1 2 1
Fitters	3 0 0	0 8 0	2 2 0	0 8 0	1 10 0	0 14 6	2 4 7	1 3 1
Hammermen ..	1 4 0	0 8 0	1 2 0	0 12 0	1 2 0	0 12 0	1 7 0	1 2 9
Machinemen & Turners ..	2 8 0	0 12 0	2 2 0	0 6 0	1 11 0	1 1 0	2 7 10	1 3 8
Mistries ..	2 12 0	1 15 0	2 10 0	1 0 0	2 2 6	1 1 4	2 8 2	1 13 6
Markers ..	3 0 0	1 4 0	1 15 0	1 0 0	1 11 6	1 0 6	2 4 7	1 13 6
Moulders ..	2 10 0	0 6 0	2 0 0	0 10 0	1 8 5	1 1 0	1 13 5	1 3 1
Painters ..	1 8 0	0 10 0	1 8 0	0 10 0	1 8 0	0 10 0	1 15 3	1 0 3
Rivetters ..	2 0 0	0 8 0	1 10 0	0 9 0	1 6 3	0 10 6	1 9 9	0 11 4
Welders	3 0 0	0 12 0	2 12 0	0 12 0	2 8 0	1 1 0	2 9 10	1 7 3

The actual maximum wages paid are less than the maximum announced, but in most cases the actual minimum rates are either the same as or above the announced rates. The figures giving the range of average basic rates show that these are substantially higher than the minimum rates and in some cases quite near the maximum rates. From this it may be concluded that there are a large number of workers whose basic wage rates are higher than the minimum rates. The range of average daily earnings (gross and net) including overtime pay and dearness allowance, but excluding the annual bonuses, shows that these allowances and extra earnings raise the incomes of the lowest paid in each category considerably. While the minimum basic rates are well below 12 as. a day in most cases and the minimum average basic rates are near Re. 1 or less than Re. 1 per day, the minimum average daily earnings are in most cases above Re. 1 per day and go up to Rs 1-13-6 per day.

B.—Bombay.

Except in one Government concern and to a certain extent in three private concerns, there does not seem to exist any time-scale or graded promotion. The rates of pay in the Government concern are divided into two schedules : (a) for those engaged on or after the 1st March, 1933, and (b) for those engaged before that date. These rates for some of the categories of workers are given in the following table.

TABLE 31.

Wage-rates in a Government Factory—Bombay.

Occupations (with grades.)	For employees engaged on or after 1-3-1933.				For employees engaged before 1-3-1933.			
	Daily rates	Monthly Rates		Annual increments.	Daily rates.	Monthly Rates		Annual increments
		Min.	Max.			Min.	Max.	
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Learners (under 17 years)	1 0				1 0			
Learners over 17 years	1 8	..	..	..	1 8	..	..	..
Assembly shop mechanic	..	40 0	61 0	3 0	..	40 0	68 0	4 0
Assembly shop wiremen	..	40 0	61 0	3 0	..	40 0	68 0	4 0
Hammermen ..	1 0	28 0	33 0	1 0	1 0	28 0	35 0	1 0
Polishmen .. Gr. II	1 12	50 0	65 0	3 0	1 12	55 0	75 0	5 0
Polishmen .. Gr. I	..	70 0	82 0	4 0	..	75 0	85 0	5 0
Painters .. Gr. II	2 0	50 0	65 0	3 0	2 0	60 0	80 0	5 0
Painters .. Gr. I	..	70 0	82 0	4 0	..	80 0	105 0	5 0
Platers .. Gr. II	2 0	45 0	60 0	3 0	2 8	45 0	65 0	5 0
Platers Gr. I	..	65 0	72 0	4 0	..	65 0	75 0	5 0
Blacksmith carpenters & Turners .. Gr. II	2 0	55 0	70 0	3 0	2 0	60 0	80 0	5 0
Blacksmith carpenters & Turners .. Gr. I	..	75 0	95 0	4 0	..	80 0	105 0	5 0
Fitters .. Gr. III	1 8	40 0	52 0	3 0	1 8	40 0	56 0	4 0
Fitters .. Gr. II	2 0	55 0	70 0	3 0	2 0	60 0	80 0	5 0
Fitters .. Gr. I	..	75 0	95 0	4 0	..	80 0	105 0	5 0
Workshop coolies ..	1 0	25 0	28 0	1 0	1 0	25 0	29 0	2 0
Electrical coolies ..	..	25 0	28 0	1 0	..	25 0	29 0	2 0
Stores Coolies ..	..	25 0	33 0	1 0	..	25 0	35 0	2 0

Note :—Increments are subject to satisfactory work and attendance.

In one of the private concerns, no specific system of graduated or time-scale promotion exists, though an effort has been made to establish rates for various categories of work. After completion of the learning period, personnel are included in one or the other of the categories at the discretion of the Management. These classifications, with their rates of pay, are as follows :—

TABLE 32.

Scales of Wage-rates in a Bombay Factory.

Classification of employment.	Standard rates of pay (in Rs. per day).			
	Class IV	Class III	Class II	Class I
I. Setters up, Tool Room Hands, Craftsmen ..	2 4 0	2 8 0	2 12 0	3 0 0
II. Machinists Group A (*i.e.*, Grinder, Fine Machine Tapping Nos. 4 & 6 Autos, DSG Lathe Gaugers and skilled workers, *e.g.*, motor winders ..	..	1 8 0	1 12 0	2 0 0
III. Machinists Group B (*i.e.*, small lathes, drills, No. 2 Autos milling etc.) semi-skilled (*i.e.*, Assemblers, Fan winders, store coolies)	..	1 4 0	1 8 0	1 12 0
IV. Learners (*i.e.*, Apprentices)	Grade of 14 as.—2 as.—Rs. 1-6-0 (at interval of 2 to 6 months).			
V. Unskilled workers	Below Rs. 1-4-0.			

In another Bombay concern, the time-scale promotion exists only for coolies and hammermen, because they get a start lower than that given to other skilled workmen. The scales are as under :

TABLE 33.

Wage-rates for Hammermen and Coolies in a Bombay Factory.

	Rate of wages (in Rs.) paid after a period of							
	Initial start	½ year	½ year	1 year	1½ years	2 years	3 yrs.	3½ yrs.
Hammermen	0 14	0 15	1 0	1 1	1 2	1 3	1 4	..
Coolies	0 14	..	0 15	1 0	..	1 1	..	1 2

In the fourth Bombay factory, owned by the Poona Municipality, the monthly-rated workers, numbering about 10, get an annual increment of Rs. 2 to Rs. 4 in the following grades :—

(i) Rs. 25—2—50 p. m. for Blacksmiths, Carpenters, Moulders and fitters.

(ii) Rs. 30—2—60 p. m. for Turners, Painters and Motor Inspectors.

(iii) Rs. 60—3—90 p. m. for Weigh bridge Mechanic.

(iv) Rs. 60—4—100—5—125 p.m. for Motor Mechanic.

Six factories have revised their basic wages in wartime. In addition to this increase in basic wages, some of these factories grant a separate dearness allowance. The changes in the wage rates in six factories are given below :—

TABLE 34.

Changes in Basic Wage Rates—Bombay.

Occupation.	Unit No.	Basic wage rates in	
		1939	1944
		Rs.	Rs.
Fitters	I	1 5 0	2 2 6
	II	1 6 0	2 8 0 to 3 12 0
	III	1 2 0 to 2 6 0	1 4 0 to 2 14 0
	IV	1 6 0 to 2 0 0	1 6 0 to 3 2 0
	V	1 0 0 to 2 12 0	1 0 0 to 3 4 0
	VI	0 9 0 to 1 5 0	1 2 0 to 1 13 0
Turners	I	1 9 0	2 8 0
	III	1 6 0 to 1 15 0	1 4 0 to 3 0 0
	IV	..	1 4 0 to 2 6 0
	VI	1 4 0	..
Moulders	I	1 12 6	2 8 0
	III	1 4 0 to 1 14 0	1 4 0 to 2 3 0
	V	1 2 0 to 2 0 0	1 4 0 to 2 14 0
Millers	I	1 12 6	2 6 3
Drillers	I	1 8 0	2 0 0
	IV	0 12 0	1 0 0 to 1 4 0
Carpenters	I	1 8 0	2 0 0
	II	2 8 0	1 8 0 to 5 0 0
	III	1 0 0 to 1 8 0	1 8 0 to 1 12 0
	IV	..	1 14 0 to 2 8 0
	VI	0 10 0 to 1 6 0	1 8 0 to 1 12 0
Tinsmith	I	1 9 2	1 15 0
	III	..	1 4 0 to 1 12 0
	IV	1 4 0	1 4 0 to 2 2 0

Occupation.	Unit No.	Basic wage rates in	
		1939	1944
		Rs.	Rs.
Blacksmiths	III	1 8 0 to 1 12 0	1 8 0 to 2 2 0
	IV	0 6 0 to 2 12 0	0 10 0 to 5 14 0
	V	0 12 0 to 2 0 0	1 8 0 to 2 8 0
	VI	0 12 0 to 1 7 0	..
Painters	II	1 8 0 to 2 4 0	1 2 0 to 2 4 0
	III	0 12 0 to 1 0 0	0 14 0 to 1 2 0
	IV	0 12 0	..
	VI	0 9 6	1 8 0
Electricians	III	1 6 0 to 1 10 0	1 12 0 to 2 4 0
Machinists	II	0 12 0 to 1 2 0	0 14 0 to 2 0 0
	III	1 4 0 to 2 9 0	1 4 0 to 2 13 0
	V	1 8 0 to 3 6 0	1 4 0 to 3 14 0
Markers	III	1 0 0 to 2 0 0	1 0 0 to 2 8 0
Pattern-makers	III	1 6 0 to 1 14 0	1 6 0 to 2 0 0
	V	1 0 0 to 1 12 0	2 12 0 to 3 0 0
Template makers	II	..	3 8 0
	III	2 4 0 to 3 12 0	3 0 0
Welders	III	2 0 0 to 2 8 0	1 8 0 to 3 4 0
	IV	1 8 0 to 1 12 0	1 10 0 to 2 6 0
Winders	II	0 12 0 to 1 6 0	0 14 0 to 2 0 0
Assemblers	II	0 12 0 to 1 2 0	0 14 0 to 1 12 0
	III	1 0 0 to 1 6 0	1 2 0 to 1 12 0
Boiler makers	III	1 0 0 to 1 8 0	1 4 0 to 2 4 0
	IV	1 8 0 to 3 8 0	1 8 0 to 4 8 0
Coolies (Male)	I	0 12 0	0 14 0
	II	0 14 0 to 1 2 0	1 0 0 to 1 8 0
	III	0 12 0 to 0 14 0	0 14 0 to 1 2 0
	IV	0 6 0 to 1 6 0	0 12 0 to 1 10 0
	V	0 8 0 to 1 0 0	1 4 0 to 1 12 0
	VI	0 6 0 to 0 12 0	0 8 0 to 1 0 0
Coolies (Female)	III	0 8 0 to 0 12 0	0 10 0 to 0 15 0

It may be mentioned here that concerns No. V and VI are in Poona, while the other four are in Bombay. This explains why the wages in No. V and VI are considerably lower than those in others.

The wages and earnings based on the figures supplied by 13 concerns (10 in Bombay and 3 in other towns) are given below. The rates in Bombay are higher.

TABLE 35.

Monthly Wages and Earnings (in Rs.) in Bombay Province. (Based on figures of 13 concerns).

Occupation.	Rates in Bombay City (10 factories).						Rates in Poona & Ahmedabad. (3 factories).					
	Basic Wages.			Gross Earnings.			Basic Wages.			Gross Earnings.		
	Max.	Min.	Ave.	Max.	Min.	Ave.	Max.	Min.	Ave.	Max.	Min.	Ave.
Fitters	132	22	56	349	40	91	50	37	44	107	26	54
Turners	105	19	63	175	43	101	..	..	36	107	39	64
Moulders	110	25	52	163	45	89	..	..	50	130	33	70
Drillers	65	25	39	120	42	71	..	..	..	65	39	47
Carpenters	110	25	61	166	46	93	50	47	49	91	52	67
Blacksmiths	125	16	60	210	26	98	..	..	55	65	39	52
Painters	95	21	43	134	37	67	..	..	34	..	..	46
Hammermen	41	22	29	85	37	58	..	..	..	39	33	36
Machinists	78	21	44	154	36	76	..	..	..	111	33	33
Welders	75	33	64	123	65	103	..	..	..	..	..	..
Coolies	41	19	27	88	32	56	23	11	16	49	24	33

C.—Bengal.

The system of graded or time-scale promotions was found only in 8 concerns, most of them being big. Increments for the skilled personnel vary from Rs. 2 to Rs. 5 annually while unskilled workmen on daily rates get increments ranging from one anna to two annas on the completion of one year's service.

The rates of wages have gone up considerably since 1939 as can be seen from the figures given in the following table. They relate to workers employed directly by the concern on time-rates.

TABLE 36.

Wage rates (in Rs.) in Bengal.

Occupation	Wage rates in 1939.			Wage rates in 1944.			Percentage increase in averages.
	Maximum	Minimum	Average.	Maximum.	Minimum.	Average.	
Beltman	1·00	0·94	..	1·90	1·24	..	..
Blacksmith Mistry	1·76	0·69	0·94	2·51	1·16	1·42	51·06%
Boilermaker Mistry	..	..	..	4·50	0·75	..	..
Boilermaker	1·75	1·31	0·88	1·74	1·00	1·25	42·05%
Carpenter Mistry	2·00	0·88	0·75	2·26	1·11	1·29	72·00%
Chippers	1·00	0·81	0·88	1·43	1·00	1·29	46·59%
Coolies	0·53	0·49	0·46	0·91	0·67	0·85	84·78%
Crane drivers	1·25	1·06	0·75	1·75	1·11	1·00	33·33%
Driller Mistry	..	..	..	2·17	1·56	..	..
Driller	1·25	1·06	0·82	1·29	0·87	1·19	45·12%
Electro-plater	..	..	..	3·25	1·44	..	..
Fitter Mistry	1·44	1·44	..	3·27	2·23	..	..
Fitter	2·00	0·75	1·19	2·43	0·86	1·83	53·78%
Furnacemen	1·75	0·63	0·56	1·30	0·62	0·75	33·93%
Hammermen	0·88	0·63	0·57	1·12	0·72	0·94	64·91%
Khalasi	1·00	0·63	0·75	1·28	0·88	1·00	33·33%
Mason	1·13	0·75	0·75	1·32	1·11	1·22	62·67%
Moulder Mistry	..	..	..	3·96	2·59	..	..
Moulder	1·50	0·85	0·63	1·91	1·08	1·25	98·41%
Oilman	1·00	0·63	0·63	0·98	0·77	1·00	58·73%
Painter	1·38	0·75	0·63	1·29	0·88	1·13	79·36%
Pattern Maker	2·00	0·50	..	2·38	0·72	..	..
Planer Mistry	..	..	..	4·50	2·00	..	..
Planer	1·50	1·06	0·63	2·03	1·00	1·00	58·73%
Rivetter	1·25	0·94	1·25	1·90	1·15	1·75	40·00%
Shaper	1·50	1·06	0·63	1·79	1·10	1·00	58·73%
Slotter	1·50	1·06	0·63	1·88	0·91	1·00	58·73%
Tool Grinder	..	..	0·88	1·79	0·90	1·19	35·23%
Turner	1·50	0·66	0·75	2·51	1·10	1·75	133·33%
Welder (Electric)	3·50	1·00	0·75	3·38	1·41	1·44	92·00%
Welder (Gas)	..	..	..	2·44	1·19	..	..

A tabular statement appended below shows the maximum, minimum and average of both basic and gross earnings for some of the important occupations in the industry.

TABLE 37.

Wages and Earnings (in Rs.)—Bengal. (Based on figures of 13 concerns).

Occupations.	Basic Wages.			Gross Earnings.		
	Maximum	Minimum.	Average.	Maximum.	Minimum.	Average.
Blacksmith	2·48	1·24	1·72	3·13	1·61	2·24
Carpenter	2·75	2·10	2·34	3·55	2·65	3·05
Chipper	1·25	0·75	1·05	1·81	1·13	1·53
Cooly	1·04	0·78	0·86	1·57	1·21	1·43
Crane Driver	1·75	1·00	1·41	3·19	1·86	2·57
Driller	2·04	1·67	1·86	2·91	2·36	2·64
Fitter	2·55	1·08	1·56	3·29	1·43	2·10
Furnaceman	2·75	0·81	1·75	4·80	1·52	3·13
Hammerman	1·13	0·88	1·00	1·58	1·27	1·43
Khalasy	1·63	0·75	1·09	2·28	1·12	1·57
Mason	1·52	1·11	1·33	2·50	1·78	2·12
Moulder	2·43	0·97	1·67	3·16	1·29	2·20
Oilman	1·04	0·72	0·85	1·74	1·22	1·43
Pattern maker	2·13	1·07	1·55	2·61	1·34	1·92
Planer	2·07	1·37	1·80	4·03	2·33	3·26
Rivetter	3·24	1·81	2·55	3·66	2·71	3·13
Shaper	1·77	0·89	1·35	2·22	1·16	1·69
Slotter	2·50	1·75	2·21	3·36	2·45	3·01
Tool Grinder	1·44	0·81	1·25	2·63	1·18	1·77
Turner	2·99	1·72	2·23	3·94	2·30	2·97
Welder	2·50	1·00	1·56	3·07	1·44	2·18

D.—United Provinces.

The system of graded or time-scale promotion was found only in one concern. Contract labour is employed by all the three concerns and the rates are said to be practically the same as those paid to labour employed directly. Considerable changes in basic wages have occurred since August 1939 ; for instance a coolie was paid on an average 6 as. to 7 as. per day in 1939 whereas

now he is paid 9 as. to 10 as. per day. The wage rates in one concern are given below :—

TABLE 38.

Wage rates (in Rs.) in a U. P. Factory.

Monthly paid staff.			Daily rated staff.		
Occupation.	Minimum.	Maximum.	Occupation.	Minimum.	Maximum.
Shift Incharge ..	90	250	Head fitter	2 0 0	3 8 0
Mistry	60	160	Fitter	1 4 0	3 0 0
Fitter Apprentice ..	40	60	Asst. Fitter	0 12 0	1 8 0
Electrician	40	100	Fitter Cooly ..	0 10 0	1 0 0
S.B. Attendant ..	30	50	Carpenter	1 0 0	2 8 0
Motor Man	18	30	Carpenter cooly ..	0 10 0	0 14 0
Bandhani Cooly ..	16	20	Blacksmith	1 8 0	2 8 0
			Hammerman ..	0 10 0	0 14 0
			Welder	1 4 0	3 0 0
			Painter	1 0 0	2 0 0
			Bandhani	0 12 0	1 0 0
			Pattern maker ..	1 8 0	3 0 0
			Core maker	1 0 0	1 8 0

In another concern, most of the skilled occupations have been divided into different grades and wages are fixed accordingly as follows :

TABLE 39.

Wage rates (in Rs.) in another U. P. Factory.

Occupation.	Rates per day.		
	Ist Grade.	IInd Grade	IIIrd Grade.
Fitters	3 0 0	2 8 0	2 8 0
Turners	4 0 0	3 0 0	2 0 0
Machinists	2 4 0	1 4 0	..
Electricians	2 8 0	2 0 0	1 8 0 (wiremen).
Welders	3 4 0	2 8 0	..
Blacksmiths	3 0 0	2 8 0	1 8 0
Carpenters	..	2 8 0	2 0 0
Grinders	..	1 0 0	0 12 0
Toungsmen	..	1 8 0	1 0 0
Hookers	..	1 0 0	0 12 0
Unskilled Labour	..	0 10 0	0 8 0

In the third concern, daily-rated coolies are paid at the rate of 11 as. to 12 as. per day : coolies at the monthly rates get a pay of Rs. 18 to Rs. 40 p.m. The technical staff get wages within a range of Rs. 24 to Rs. 115 per month.

E.—Punjab.

None of the concerns investigated has any system of graded or time-scale promotion. Contract labour is employed only in one concern and it receives more, it is stated, than the company's labour. Wages since 1939 have increased, as the following figures show.

TABLE 40.

Wages and Earnings in a Punjab Factory.

Occupation	1939 Basic Wages.		1945 Basic Wages.		1945 Gross Earnings.	
	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.
Turners	0 8	1 10	1 4	2 9	1 12	3 1
Welders	0 13	2 0	1 8	3 0	2 0	3 8
Fitters	0 12	1 8	0 14	4 0	1 6	4 8
Coolies	0 4	0 9	0 8	0 15	1 0	1 7
Hammermen	0 9	0 12	0 10	0 8	1 2	2 0
Blacksmiths	0 14	2 8	1 5	3 0	1 13	3 8
Masons	..	1 4	1 8	2 0	2 0	2 8
Electricians	..	0 12	1 4	2 4	1 12	2 12
Carpenters	0 14	1 10	1 6	2 0	1 14	2 8
Moulders	8	2 0	1 0	5 0	1 8	5 8
Core Makers	0 10	1 0	1 0	3 8	1 8	4 0
Firemen	..	1 4	0 11	1 9	1 3	2 1
Tongsmen	0 11	1 10	0 14	2 4	1 6	2 12
Shapers	..	..	1 4	2 0	1 12	2 8
Planers	..	..	1 8	2 8	2 0	3 0
Drillers	..	..	1 4	1 8	1 12	2 0
Slotters	..	..	0 14	1 6	1 6	1 14
Grinders	..	..	0 10	1 0	1 2	1 8
Markers	..	..	1 12	3 8	2 4	4 0
Polishers	..	..	0 12	1 2	1 4	1 10
Khalasies	..	..	0 8	2 8	1 0	2 0
Rivetters	..	..	..	3 0	..	2 8
Bar holder	..	..	0 8	1 1	1 0	1 9

The wage-rates and earnings in three other concerns are given below :—

TABLE 41.

Wage-rates and Earnings (in Rs.) in Punjab.

Occupation.	Wage-rates in concerns I & II.				Gross Earnings in Concern.		
	I		II		III		
	Maximum.	Minimum	Maximum.	Minimum.	Maximum.	Minimum.	Average.
Turners ..	2 8	7 0	1 12	3 8	3 12 0	1 2 0	1 10 6
Fitters ..	2 0	4 2	1 12	3 8	3 0 0	2 0 0	2 4 0
Moulders ..	1 10	8 0	1 10	3 8	..	..	..
Carpenters ..	3 2	3 12	2 0	3 6	..	..	..
Painters ..	2 10	4 0	1 6	3 0	..	..	..
Coolies ..	1 2	1 15	1 0	1 4	1 8 0	1 7 0	1 7 6
Blacksmiths ..	3 12	6 0	1 12	2 14	3 12 0	2 4 0	..

F.—Bihar.

In two of the four concerns, there is the system of graded or time-scale promotions, but it is mainly restricted to supervisory posts and to monthly-rated operatives. A considerable number of workers (mostly unskilled) are on standard rates of pay and cannot get any increment until promoted to a higher vacancy. Only one factory employs contract labour, who get less than the company rates. The Management of the Company, however, scrutinise the contractor's pay-rolls and supervise payments to ensure that fair rates are paid.

The increase in wage rates since 1939 can be seen from the following figures of a foundry in Tatanagar.

TABLE 42.

Wage-rates in a Tatanagar Foundry.

Department.	Wage-rates during.						
	Aug. 1939	1940	1941	1942	1943	1944	1945
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Ramming	1 3 0	1 3 0	1 4 0	1 4 0	1 4 0	1 6 0	1 6 0
Chapni	0 13 0	0 13 0	0 14 0	0 14 0	0 14 0	0 15 6	0 15 6
Box S. Supplies	0 11 0	0 11 0	0 12 0	0 12 0	0 12 0	0 13 6	0 13 6
Black S. Supplies	0 9 0	0 9 0	0 10 0	0 10 0	0 10 0	0 11 0	0 11 0
Sand L. Maker	0 8 0	0 9 0	0 10 0	0 10 0	0 10 0	0 11 0	0 11 0
Kudawalla	0 7 6	0 7 6	0 8 6	0 8 6	0 8 6	0 9 6	0 9 6
Nali	0 13 0	0 13 0	0 14 0	0 14 0	0 14 0	0 15 0	0 15 0
Clamp tighter	1 3 0	1 3 0	1 4 0	1 4 0	1 4 0	1 5 0	1 5 0
D. L. Carrier	0 13 0	0 13 0	0 14 0	0 14 0	1 0 0	1 1 0	1 1 0
S. L. Carrier	0 11 0	0 11 0	0 12 0	0 12 0	0 14 0	0 15 0	0 15 0
Stick-holder	0 8 0	0 8 0	0 9 0	0 9 0	0 10 0	0 11 0	0 11 0
Runner-braker	0 10 0	0 11 0	0 12 0	0 12 0	0 15 0	1 0 0	1 0 0
Laddle Repairer	0 10 0	0 11 0	0 12 0	0 12 0	0 14 0	0 15 0	0 15 0
Big Laddler	0 9 0	0 9 0	0 10 0	0 10 0	0 12 0	0 13 0	0 13 0
Removing Khalasi	0 13 0	0 13 0	0 14 0	0 14 0	0 14 0	1 0 0	1 0 0
Water-boy	0 8 0	0 9 0	0 9 0	0 9 0	0 10 0	0 10 0	0 11 0
Sl. Moulder	1 1 0	1 1 0	1 2 0	1 2 0	1 2 0	1 3 0	1 3 0
Sl. Coremaker	1 1 0	1 1 0	1 2 0	1 2 0	1 2 0	1 3 0	1 3 0

Two other factories investigated in Bihar have standardised their wages, not only according to the different categories of workers, but also according to different shops. The following table gives maximum and minimum wage rates for a few of the numerous categories. It may be pointed out that sub-occupations have not been taken into consideration. Drivers, for example, include crane drivers (which are for electric, steam loco, hydraulic, petrol, overhead and jib or derrick cranes), stationary engine drivers (for steam, i.e., gas or other power engines), and drivers for air compressor, blower, blower condenser, boiler feed pump, booster, steam, engine boiler, ice engine, generator, generator condenser pump, hydraulic pump, turbine engine, service water pump, locomotive, electric-loco, diesel loco, petrol lorries, charging lorry, door extractor, hoist engine, lorry car, pusher, steam lorry and Lister truck. All these categories, however, are included under ' Drivers '.

TABLE 43.

Wage-rates (in Rs.) in two Bihar Factories.

Occupation.	Wage-rates in Factory I.		Wage-rates in Factory II.	
	Minimum	Maximum	Minimum.	Maximum.
Blacksmiths	1 8 0	3 0 0	1 8 0	2 6 0
Fitters	1 8 0	3 0 0	1 6 0	3 2 0
Shearers	1 4 0	1 12 0	1 6 0	2 6 0
Grinders	1 0 0	2 0 0	1 8 0	2 8 0
Firemen	1 0 0	1 8 0	1 0 0	1 6 0
Serangs	2 0 0	..	1 8 0	2 6 0
Khalasies	0 9 0	2 6 0	0 12 0	1 4 0
Hammermen	0 14 0	1 6 0	0 14 0	1 4 0
Moulders	1 0 0	2 12 0	1 12 0	2 2 0
Painters	0 12 0	2 0 0	0 14 0	1 6 0
Masons	0 14 0	2 0 0	1 4 0	2 2 0
Turners	1 8 0	3 0 0	1 4 0	3 2 0
Oilmen	0 14 0	1 0 0	0 14 0	1 2 0
Machinemen	1 0 0	3 0 0	1 2 0	2 8 0
Drillers	1 0 0	1 10 0	1 2 0	1 4 0
Welders	1 12 0	3 0 0	1 0 0	2 2 0
Drivers	0 12 0	5 8 0	1 0 0	2 10 0
Carpenters	1 4 0	2 2 0	2 0 0	2 6 0
Coolies	0 8 0	0 9 0	0 8 0	0 9 0
Rejas (sweepers)	0 7 0	0 7 6	0 7 0	0 8 0

The higher staff such as foremen, shift-foremen ,supervisors, *maistries*, chemists, etc., have graded scales, which vary from Rs. 100 to Rs. 950 p.m. with annual increment, varying from Rs. 5 to Rs. 25.

The wages and earnings of a few categories of workers in Factory I in the above table are given below. This factory is a very large one, employing over 28,000 employees.

TABLE 44.

Basic Wages and Gross Earnings in a Bihar Factory.

Occupation.	No. of work-ers.	Daily wage-rate.		Basic wages earned.			Gross earnings.		
		Max.	Min.	max.	Min.	Ave.	Max.	Min.	Average.
		Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Fitters	145	3 0	1 8	78 0	39 0	51 13	105 12	61 14	75 13
Machinemen	237	3 0	1 0	78 0	26 0	43 11	105 12	50 2	67 1
Blacksmiths	50	3 0	1 8	78 0	39 0	49 15	105 12	65 4	73 14
Masons	268	2 4	0 14	58 8	22 12	40 2	86 15	46 14	68 2
Riggers	154	1 9	1 0	40 10	26 0	32 11	63 14	48 8	55 12
Painters	100	2 0	0 14	52 0	22 12	29 0	76 4	44 8	51 6
Moulders	245	2 12	1 0	71 8	26 0	39 1	101 6	51 4	65 14
Chippers	69	2 2	0 10	55 4	16 4	24 14	83 5	40 5	49 14
Carpenters	46	2 2	1 4	48 12	32 8	39 8	72 0	55 0	61 14
Tongsman..	24	2 4	2 0	58 8	52 0	56 1	94 13	84 14	92 5
Khalasis	569	2 0	0 9	56 0	15 12	31 15	85 1	39 10	58 9
Forkman	62	0 14	0 13	24 8	22 12	23 1	48 4	46 8	46 13
Drivers	96	5 8	2 0	154 0	56 0	85 3	221 5	112 1	117 14
Firemen	95	1 8	1 0	42 0	28 0	39 9	76 2	61 6	70 7
Switchboard attendants ..	64	4 0	2 3	112 0	61 4	80 6	155 3	95 3	118 11
Coolies (male)	5756	..	0 8 9	15 5	15 5	15 5	31 7	31 7	31 7
Coolies (female)	3372	..	0 7 6	13 2	13 2	13 2	29 1	29 1	29 1
Sweepers (male)	408	..	0 8 9	16 7	16 7	32 9	32 9	32 9	32 9
Sweepers (female)	497	0 7 6	0 7 0	14 1	13 2	14 0	30 0	29 0	29 15

The wages and earnings in Factory II are given below.

TABLE 45.

Basic Wages and Gross Earnings in another Bihar Factory.

Occupation.	No. of work-ers.	Basic wages earned			Gross Earnings.		
		Max.	Min.	Ave.	Max.	Min.	Ave.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Rollers	31	91	61	78	156	102	121
Finishing Heaters	44	78	51	70	126	97	109
Finishing Catchers	24	54	47	51	99	70	79
Opener and S. Helpers	50	34	30	33	61	52	54
Annealing Openers	22	34	30	32	58	50	54
Firemen	32	36	36	36	67	58	62
Roll-changing Khalasis	30	58	28	49	91	47	78
Turners	24	73	38	56	96	59	79
Machinemen	33	73	29	50	104	48	76
Fitters	77	73	44	57	108	67	86
Blacksmiths	15	54	50	52	85	75	80
Hammermen	15	34	27	31	58	47	54
Welders	13	47	44	46	79	70	75
Khalasis	14	47	29	35	78	48	58
Carpenters	4	67	46	54	100	71	82
Masons	8	62	47	52	96	71	80
Painters	3	54	29	42	78	48	63
Drivers	2	78	78	78	124	124	124
Coolies	92	15	13	14	30	27	28
Rejas (Female sweepers)	68	11	11	11	27	25	26

Note.—No. of days worked in the month are 27.

G.—Baroda.

None of the three concerns investigated has a graded or time-scale system of promotion. In one of the concerns the minimum daily wage rate is 11 as.

while the minimum monthly wage is Rs. 32. The wage rates and gross earnings in the other two concerns are given below :—

TABLE 46.

Wage-rates and Gross Earnings in two Baroda Factories.

Occupation.	No. of workers.	Daily wage rate.		Basic wages earned.			Gross Earnings.		
		Max.	Min.	Max.	Min.	Ave.	Max.	Min.	Ave.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Factory I									
Fitters ..	45	3 6 0	1 2 0	50 2 6	29 0 6	40 5 8	50 2 6	29 0 6	40 5 6
Moulders	74	3 0 0	1 0 0	78 14 3	28 2 0	47 3 10	78 14 3	28 2 0	47 3 10
Coolies ..	90	1 0 0	0 12 0	35 12 9	18 5 6	24 6 5	35 12 9	18 5 6	24 6 5
Factory II									
Fitters ..	1	..	1 12 0	39 0 0	39 0 0	39 0 0	39 0 0	39 0 0	39 0 0
Turners	3	5 0 0	1 12 0	117 8 0	14 4 0	73 14 8	117 8 0	14 4 0	73 14 8
Moulders	3	3 14 0	2 12 0	120 4 0	50 5 0	75 14 0	120 4 0	50 5 0	75 14 0
Carpenters	3	2 8 0	1 8 0	67 8 0	28 8 0	44 8 0	67 8 0	28 8 0	44 8 0
Coolies ..	11	..	1 0 0	26 0 0	13 0 0	21 8 0	26 0 0	13 0 0	21 8 0

H.—Mysore.

The following are the daily wage rates paid in the factory investigated. A day consists of 8 hours.

TABLE 47.

Daily Wage-rates in the Mysore Factory.

Type of work.	Grade	Wage-rate.	
		Minimum.	Maximum.
		Rs. A. P.	Rs. A. P.
(*i*) Highly skilled jobs of a very responsible nature (chargemen, Maistries, etc.).	I	2 10 0	3 0 0
	II	2 2 0	2 8 0
(*ii*) Skilled jobs requiring a good experience and careful handling	I	1 10 0	2 0 0
	II	1 4 0	1 8 0
(*iii*) Semi-skilled jobs or jobs of an arduous nature	..	0 12 0	1 2 0
(*iv*) Unskilled jobs requiring handling by male adults	..	0 8 0	0 11 0
(*v*) Jobs that can be handled by boys or women (adolescents and female coolies).	..	0 5 0	0 8 0

Note.—(*i*) Skilled and semi-skilled jobs (classes *ii* and *iii*) include masons, machinists, moulders, blacksmiths, hammermen, fitters, turners, etc.

It has been estimated that there has been an increase of about 15 to 25 per cent. in the rates since 1939 in the lower grades and up to 60 per cent. in the higher grades.

Dearness Allowance.—As the following table shows a number of methods are used for the payment of dearness allowance.

TABLE 48.

Methods of Payment of Dearness Allowance.

Province or State.	No. of concerns.	Method of payment of dearness allowance.					No dearness allowance.
		Flat rate for all.	Different flat rates for dif. groups.	Sliding scale based on cost of living index.	Based on percentage basis.	Mixed (more than one method).	
Madras ..	9	2	5	2	..	..	..
Bombay ..	18	2	4	7	1	..	4
Bengal ..	22	4	6	..	6	6	..
U. P. ..	3	..	..	..	1	2	..
Punjab ..	5	1	..	..	1	..	3
Bihar ..	4	..	..	..	..	4	..
Baroda ..	3	..	1	..	..	..	2
Mysore ..	1	..	1	..	..	..	..
Total ..	65	9	17	9	9	12	9

Nine concerns do not pay the dearness allowance, but most of them increased their basic wages in war time. The daily flat rate varies from 4 as. to 10 as., while the monthly rate varies from Rs. 2 to Rs. 18, both calculated on *pro-rata* attendance. In one concern, the rate is 6 pies per hour on working days only. Out of the 65 concerns investigated, as many as 26 give dearness allowance at a flat rate, in 17 of these 26 concerns for different groups of workers, different flat rates are used, some of which are given below.

TABLE 49.

Flat Rates of Dearness Allowance.

Province.	Concern.	*	Per month or per day.	Income Groups and Rates of Dearness Allowance. I	II	III	IV
Madras ..	I	I.G.	..	Up to Rs. 15 p.m.	Up to 11 As. p.d.	11 As. and over p.d.	..
		D.A.	p.d.	Re. 0 2 9	Re. 0 4 6	Re. 0 6 0	
	II and III	I.G.	p.m.	Up to Rs. 40	Rs. 40 and above	..	..
		D.A.	p.m.	Rs. 10	Rs. 13		
	IV	I.G.	p.d.	Up to Re. 1	Re. 1 and above	..	..
		D.A.	p.m.	Rs. 10	Rs. 12	..	..
	V	I.G.	p.d.	As. 5 to As. 10	As. 11 to Rs. 1 1 0	Rs. 1 2 0 to Rs. 1 8 0	Rs. 1 9 0 to Rs. 2 2 0
		D.A.	p.m.	Rs. 4	Rs. 4 8 0	Rs. 5 8 0	Rs. 6 8 0
Bombay ..	I	I.G.	p.d.	Up to Re. 1	Re. 1 & above	..	..
		D.A.	p.d.	As. 8	As. 10	..	..
	II	I.G.	p.m.	Up to Rs. 60	Rs. 60 & above	..	..
		D.A.	p.m.	Rs. 12	Rs. 10	..	..
Bengal.. ..	I	I.G.	p.d.	Up to 8 As.	As. 8 to Re. 1	Re. 1 to Rs. 1 8 0	Rs. 1 8 0 to Rs. 2.
		D.A.	p.d.	1 anna	2 annas	As. 3 to As. 6	As. 6 to 8 As.
	II	I.G.	p.m.	Up to Rs. 34	Rs. 34 to Rs. 150	..	..
		D.A.	p.m.	Rs. 14	Rs. 18	..	
	III	I.G.	p.m.	Up to Rs. 30	Rs. 30 & above	..	..
		D.A.	p.m.	Rs. 9	Rs. 9—8 0	..	..
	IV	I.G.	p.d.	Up to Re. 0 12 6	Rs. 0 12 9 to Rs. 1 8 6	Over Rs. 1 8 6	.. ..
		D.A.	p.m.	Rs. 8 8 0	Rs. 9 0 0	Rs. 10 0 0	..
Baroda ..	I	I.G.	p.m.	Rs. 20 to Rs. 50	Rs. 51 to Rs. 150	..	..
		D.A.	p.m.	Rs. 15	Rs. 17 8 0		
Mysore ..	I	I.G.	p.m.	Up to Rs. 80	Rs. 80 to Rs. 100	Rs. 100 to Rs. 150	..
		D.A.	p.m.	Rs. 7 8 0	Rs. 8 0 0	Rs. 10 0 0	..

* I.G.=Income Group. D.A.=Dearness allowance.

In a few cases, the income groups are more than four; for example, the rates of dearness allowance in a Bengal concern are as follows :—

TABLE 50.

Dearness Allowance in a Bengal concern.

On hourly wage-rates up to and				Dearness Allowance (pies per hour).
Including	Rs. 0	A. 2	P. 6	9
Over	0	2	6 not exceeding Rs. 0 3 3	9½
,,	0	3	3 ,, 0 4 0	10
,,	0	4	0 ,, 0 5 0	10½
,,	0	5	0 ,, 0 6 0	11
,,	0	6	0 ,, 0 7 0	11½
,,	0	7	0 ,, 0 8 0	12
,,	0	8	0	12½

In some other cases, the rates are different for different categories of workers ; for example, in one concern, the rates for blacksmiths are Rs. 4, 3 and 2, for fitters, Rs. 15, 10, 4 and 3, for turners, Rs. 4, for coolies, Rs. 2, for pattern-makers Rs. 4 and for M|e men Rs. 4 and 3. In another factory, the moulding shop workers get dearness allowance at the rate of 6 as. in the rupee on the pay earned; workers in other shops of the factory have no uniform rate and get anywhere between Rs. 2 and Rs. 19 per month. Out of the nine concerns which base their dearness allowance on a sliding scale basis the two in Madras pay roughly 2 as. per point in the cost of living index. In one concern the rate at index 200 was Rs. 17-14-0 and the dearness allowance in September 1944 amounted to Rs. 18-6-0 per month. In Bombay most of the concerns utilising the sliding scale method follow the Bombay Mill-owners' Association, subject to certain conditions. One of the factories, for example, pays the allowance according to the Millowners' Association's scale, only to those who are getting less than Rs. 1-12-0 per day; for those getting higher the factory has a more favourable scale by which this allowance rises by one per cent of basic wages earned for every two points by which the cost of living index exceeds 100. In another factory, the workers get four-fifths of the allowance paid by the textile mills. In two concerns, the workers get dearness allowance at the rate of one per cent for each two points by which the cost of living index exceeds 100 or according to the Millowners' Association scale, whichever is higher. Nine of the units investigated have fixed dearness allowance as a certain proportion of the total wage earned by a worker. In the Bengal factories, this proportion ranges from one anna to 6 as. per rupee. In a U. P. factory, the proportion of dearness allowance varies inversely with the basic wage of a worker as follows :

TABLE 51.

Dearness Allowance in a U. P. Factory.

(Allowance based as a percentage of wages).

Monthly wages earned	Rate of dearness allowance.
	Re.
Re. 1 to Rs. 16	0 10 6 per rupee earned.
Rs. 16 to Rs. 25	0 8 3 ,, ,,
Rs. 25 to Rs. 32½	0 7 6 ,, ,,
Rs. 32½ to Rs. 40	0 6 9 ,, ,,
Rs. 40 to Rs. 50	0 6 0 ,, ,,
Rs. 50 to Rs. 75	0 4 6 ,, ,,
Rs. 75 to Rs. 100	0 4 6 ,, ,,

In a Punjab concern, dearness allowance is paid at the rate of 10 per cent. of the basic wages. As many as 12 concerns utilise more than one method for the payment of dearness allowance and some of the examples are given below. In a Bengal factory, dearness allowance is paid at the rate of 25 per cent. of the wages earned plus Rs. 5 with a minimum of Rs. 10 p.m. In another Bengal concern, those drawing wages up to Rs. 50 get 1 anna 6 pies per rupee, while others getting below Rs. 80 get 1 anna per rupee.

There is also a general Dearness Allowance at the rate of 6 pies per rupee for every hour worked. In a third Bengal concern, workers getting below Rs. 50 are given Rs. 0-1-6 per rupee as dearness allowance, while those earning between Rs. 50 and Rs. 100 get Rs. 2-8-0. In a U. P. factory, ordinary coolies get dearness allowance at the rate of Re. 0-5-6 per rupee earned, while workmen employed on monthly wages are paid the allowance at the rates recommended by the Employers' Association of Northern India. In another U. P. concern, there are three rates of Dear Food Allowances, which are added together and are then paid to the workmen. These rates are as follows :—

TABLE 52.

Rates of Dear Food Allowance in a U. P. Factory.
(All the three D. F. As are added together and paid)

Basic Wages.		Dear Food Allowance (per rupee).	
Daily.	Monthly.	I D.F.A.	II D.F.A
		Rs. A. P.	Rs. A. P.
1 anna to 11 As.	Re. 1 to Rs. 19	0 2 0	0 2 0
12 As. to Re. 1-4-0	Rs. 19-8-0 to Rs. 32-8-0 ..	0 1 6	0 1 6
Rs. 1-5-0 to Rs. 2-14-0	Rs. 32-8-0 to Rs. 75 ..	0 1 6	0 1 0
Above Rs. 2-14-0	Above Rs. 75	0 1 6	0 0 6
			III D.F.A.
1 anna to As. 15	Re. 1 to Rs. 25	1 pie per point per day	
Re. 1 to Rs. 1-8-0	Rs. 26 to Rs. 40	1·5 ,, ,, ,,	
Rs. 1-8-6 to Rs. 2-14-0	Rs. 41 to Rs. 75	2 pies ,, ,, ,,	
Above Rs. 2-14-0	Above Rs. 75	2·5 ,, ,, ,,	

The four factories investigated in Bihar have adopted the following scales.

TABLE 53.

Dearness Allowance in Four Bihar Factories.

Income groups.	Rate of Dearness Allowance.
	Rs. p.m.
Up to Rs. 100 p.m.	10
Rs. 100 to Rs. 199 p.m.	13
Rs. 200 to Rs. 299 p.m.	16
Rs. 300 to Rs. 399 p.m.	20
Rs. 400 to Rs. 499 p.m.	25
Rs. 500 to Rs. 2,000 p.m.	10% of salary.
Rs. 2,000 to Rs. 2,200 p.m.	Difference between salary and Rs. 2,200 p.m.

Bonus and other Allowances.—34 concerns (Madras, 4; Bombay, 15; Bengal, 7 ; U. P., 1 ; Punjab, 1 ; Bihar, 4 ; Baroda, 1 and Mysore, 1) pay what may be called the ' prosperity ' bonus, because of the war-time profits. This bonus varies from 25 days' to 3 months' wages in a year and is generally subject to such conditions as prescribed number of days' attendance, employment at the time of distribution, etc. In a Bombay concern, those who take the bonus in 12 equal instalments are paid a further 25 per cent extra at the end of their final payment. In all cases, however, the bonus is temporary and conditional on the extent of profits earned by the company.

Besides this war-bonus, workers get some other allowances also. In Madras, the Government factories do not give the ' prosperity bonus ', but grant what is called a " Saturday Bonus ", which may be considered as an attendance bonus. On Saturdays the workshops work for 5-1|2 hours and wages are given for two hours more as " bonus " to workers who attend regularly throughout the week. If a worker is irregular in attendance, he loses the whole or a part of this Saturday bonus. In a Bombay factory, production bonus is given to certain workmen engaged on specialised jobs. In two other Bombay factories a Sunday or holiday bonus is paid to all workers who work on Sundays or holidays. This bonus is in addition to the overtime rates stipulated under the 'Factories Act. In Bengal, three factories award Puja bonus which in one case is equivalent to 50 per cent of the salary of the workers. In another Bengal concern, which pays production bonus, the time-rated workers are allowed yearly general bonus equivalent to two months' earnings, while piece-rated workers get 10 per cent of their " excess earnings ". In a few Bengal concerns, the practice of awarding attendance bonus, war allowance and food grains at concessional rates exists. In the four factories investigated in Bihar a number of allowances and bonuses are paid. A war-time allowance, known as Emergency Allowance, is paid in two factories. It is 10 per cent. of the salary, subject to a minimum of Rs. 5 per month, to all employees getting below Rs. 500 per month. Three factories give a flat cost rebate per month at the rate of Rs. 3-11-0 for family-men and Rs. 2-8-0 to bachelors by way of financial concession against food purchases, since Government have taken over the control of rationing. Production bonus averaging 25 per cent. is paid to all daily-rated workers in one of the factories. Production bonus in another factory is based on the total monthly production of finished steel and is payable to all monthly-paid workers, drawing less than Rs. 300 p.m. (or Rs. 10 p.d.). The maximum bonus is payable for a production of 50,000 tons and on this production, the lowest rated employees would earn Rs. 6 p.m., while an employee getting Rs. 300 p.m. would get Rs. 12 p.m.

In the biggest factory (employing over 28,000 workers) in Bihar, there are other miscellaneous allowances, such as the following : (i) *Departmental bonus*—based on the production of a department and payable to workers directly concerned with such production; this bonus being in addition to the general Production Bonus and in many cases equal to 100 per cent. of a man's wages; (ii) *Shipment Bonus*—payable on the outward despatch of materials to workers employed in Shipping Departments, or in the Shipping Sections of production departments, in the case of lowest paid workers eligible for bonus in the merchant mill shipping department, i.e., stock khalasies, whose rate is 9 as. per day, the monthly bonus being on an average Rs. 29-6-0 per month; (iii) *New Departmental Bonus*—payable to workers in production departments, who receive general production bonus but are not eligible for departmental bonus, it being 10 per cent of an employee's wages ; (iv) *Attendance*

Bonus—payable to all weekly paid employees, as well as to monthly paid employees, whose wage proper is less than Rs. 15 p.m., the bonus amounting to two days' additional pay for every four weeks of duty provided that the employee has not been absent for more than one day during that period and to one day's pay, if he has been absent for not more than 2 days during the period of four weeks ; (v) *Efficiency Bonus*—payable to certain workmen in the shops employed on repetition jobs amounting to one pie in the rupee of the employee's wages for every one per cent. (after the first five per cent.) of time he serves on the estimated maximum time for each job ; (vi) *Demurrage Bonus*—payable every month to most monthly-paid employees of the Traffic Department provided the Company does not incur any liability for demurrage to the B. N. Railway and (vii) *Hot Bonus*—payable to the locomotive crew who deliver the steel ingots from the pitside of the furnaces to the soaking pit of the mills, the bonus depending on the speed with which the ingots are delivered. In the Mysore factory, a production bonus is paid to workers at the blast furnace, the pipe foundry, the open hearth and the rolling mills according to the excess of output over a fixed minimum. This is shared by all the workers in the section in proportion to their wages.

Overtime.—Of the 65 concerns investigated only 14 concerns (Bombay, 4; Bengal, 5; U. P., 2; Punjab, 2; and Baroda, 1) do not work overtime. Though the rate of overtime lacks uniformity, the provisions of the Factories Act with regard to extra payment for overtime are generally observed. Overtime is defined in most concerns as any work beyond scheduled working hours and work on any holiday. Such work is compulsory only in a few concerns, which are engaged on war-work. One way of compelling people to take up overtime is to threaten them that they would not be allotted overtime again when a chance occurs, if they refuse to take it up when asked. In war time, exemptions have been given to engineering concerns from Sections 34, 35 and 36 of the Factories Act. It was alleged by some representatives of workers that taking advantage of these exemptions an excessive amount of overtime work was being done for the following reasons (i) the fact that there is a shortage of machinery and equipment, (ii) the desire of the employer to carry on with a relatively small labour force and (iii) the substantial amount being paid as dearness allowance to workers, it is cheaper to pay a worker overtime at 1-1|2 times the daily rate rather than engage him for another day or engage extra labour. Over-time work is generally recorded in registers. In a few cases it was found that these registers were not open to workers or their representatives for inspection.

Deductions and Fines.—Voluntary deductions from the wages of the workers are made for provident fund, house rent (if the workers are housed in Company's quarters), rations, subscriptions to the Co-operative Society, advances or loans granted by the factory, etc. Fines, however, have been imposed in 18 concerns (Madras, 1; Bombay, 5; Bengal, 6; U. P., 1; Punjab, 1; Bihar, 1; Baroda, 2; and Mysore, 1). The details of some of these Fine Funds are given below :

TABLE 54.

Fine Fund.

Province	Concern.	No. of workers employed	Amount outstanding in Fine Fund (Rs.)	Period	Fine Fund used for
Bombay	I	2,692	38 2 0	1938 to 1944	'Workmen's Welfare Fund'.
	II	575	918 14 6	Up to 31—1—'44	Conveyance and Medical charges.
	III	393	156 6 6	1943-44 ..	'Workmen's Benefit Fund'.
	IV	228	12 4 6	Outstanding in Fund	Education of the workers.
	V	158	203 11 0	,,	Benefit of the workmen.
Bengal	I	890	60 0 0	,,	Hospital Fund.
	II	585	18 2 0	1944	Medical Aid.
	III	3,713	3,353 11 6	Outstanding in Fund	Not yet used.
	IV	1,856	20 10 0	,,	,,
	V	2,085	32 9 0	1943	Welfare of workers.
U.P.	I	3,356	40 12 0	1944	,,
Punjab	I	189	1 10 0	1944	,,
Bihar	I	28,477	1,725 0 0	Outstanding in Fund	Not yet used.
Baroda	I	248	No fine in 1943	..	..
	II	214	9 0 0	Outstanding in Medicines Fund.	..

In the Mysore concern, fines are imposed in small amounts, but no separate Fine Fund is maintained, the amount going to the general revenues of the factory.

Wage Period.—The following figures show the wage periods adopted by the investigated concerns.

TABLE 55.

Wage Periods.

Province.	Number of Concerns paying the workers				Total
	Monthly	Fortnightly.	Weekly.	Miscellaneous (at varying periods).	
Madras	6	2	1	..	9
Bombay	12	1	1	4	18
Bengal	14	3	5	..	22
U.P.	..	2	..	1	3
Punjab	4	..	1	..	5
Bihar	1	..	..	3	4
Baroda	2	..	..	1	3
Mysore	1	..	..	..	1
Total ..	40	8	8	9	65

The nine concerns which use several methods, generally pay their unskilled workers either daily or weekly and their skilled workers monthly. A few of them pay some of their workers fortnightly. The waiting period in the case of monthly-paid workers varies from 7 to 10 days. In the case of weekly payment, normally one week's pay is kept in hand and payment is made on subsequent Saturday.

Holidays.- There is hardly any uniformity as regards closed holidays in the investigated units. However, it was found that 37 units (Madras, 1; Bombay, 12; Bengal, 13; U. P., 3; Punjab, 4; Bihar, 1; Baroda, 2; and Mysore, 1) allow holidays only once a week, usually on Sundays. The remaining 28 concerns allow some public holidays for festivals etc. in addition to the weekly holiday. These additional holidays vary from one to ten in number and may be with or without leave. Generally " no work no pay " is the rule in many factories. In a Bombay concern, sectional half-holidays are given on communal basis. The important holidays granted in Bengal are for Durga Puja and for Viswa Karma Puja and in South India for Dussera and Dipawali.

Working Conditions.

Shifts and hours of Work. The number of shifts varies from factory to factory. In one of the U.P. factories, there are 41 shifts, which include general day and night shifts for various categories of workers. Generally, the maintenance staff and the continuous process workers have separate shifts from those for men on general shifts. Some of the ' shops ' have their own independent shifts. In the following tables, however, the most important shifts have been taken into consideration.

TABLE 56.

Number of Shifts.

Province or State	Total number of concerns which have						Total No. of	
	1 shift	2 shifts	3 shifts	4 shifts	5 shifts	7 shifts	concerns	shifts
Madras	6	3	..	..	..	..	9	12
Bombay	7	5	2	..	1	1	16	35
Bengal	12	4	1	4	..	..	21	39
U.P.	..	2	..	..	..	..	2	4
Punjab	3	..	1	1	..	..	5	10
Bihar	..	..	..	4	..	..	4	16
Baroda	2	..	1	..	..	..	3	5
Mysore	..	..	..	1	..	..	1	4
Total ..	30	14	5	10	1	1	61	125

The hours of work, rest-interval and spreadover of these 125 shifts are shown in the following table.

TABLE 57.

Hours of Work, Rest Interval and Spreadover.

Nature of (normal) shifts.			Number of such shifts in the sampled factories in								Total
Actual hours of work	Rest Interval	Spread over	Madras	Bombay	Bengal	U.P.	Punjab	Bihar	Baroda	Mysore	
7½	½	8	..	..	15	..	3	12	..	3	33
7½	2	9½	..	..	..	..	..	..	..	1	1
8	½	8½	..	..	4	..	2	..	..	..	6
8	1	9	6	5	3	..	..	1	..	..	15
8	1½	9½	..	1	3	..	..	1	..	..	5
8	2	10	..	..	..	..	..	2	..	..	2
8¼	1	9¼	..	4	..	..	..	..	..	..	4
8½	½	9	..	..	6	..	..	..	1	..	7
8½	1	9½	3	6	3	..	1	.		..	15
8¾	½	9¼	1	..	..	..	..	..	..	..	1
9	½	9½	..	..	1	..	..	..	..	..	1
9	1	10	2	15		4	4	..	1	..	27
9	1½	10½	..	1	..	..	..	..	..	..	1
9½	1	10½	..	1	..	..	..	..	1	..	2
10	1	11	..	2	2	..	..	..	..	..	4
10	1½	11½	..	..	1	..	..	..	..	..	1
	Total	..	12	35	39	4	10	16	5	4	125

Thirty out of the 33 shifts in the first line in the above table, are continuous process shifts, each of 8 hours. Out of the 125 shifts, 19 are night shifts as follows.

TABLE 58.

Night Shifts.

Nature of night shifts			Number of night shifts in the sampled factories in				Total
Actual hours of work.	Rest Interval	Spread-over	Madras	Bombay	Bengal	U.P.	
8	1	9	2	3	..	..	5
8½	1	9½	..	2	..	..	2
8¾	1	9¼	1	..	..	..	1
9	1	10	..	4	..	2	6
10	1	11	..	2	2	..	4
10	1½	11½	..	..	1	..	1
		Total ..	3	11	3	2	19

The hours of work in some concerns may vary from time to time. For example, the single shift in a Bengal concern is of 8-1|2 hours normally but sometimes of 9-1|2 hours depending on the pressure of work. In a night shift in another Bengal concern, the rest interval of 1-1|2 hours is broken into two : first from 10.30 p.m. to 11.30 p.m. and the second from 2.30 a.m. to 3.00 a.m.

Seven factories in Madras, three in Bombay and five in Bengal have separate shifts for Saturdays. These shifts, as the following table shows, are 19 in number.

TABLE 59.

Hours of work on Saturdays.

Province	Number of shifts with a spreadover of hours											
	3½	4	4½	4¾	5	5½	6	6½	7	7¼	7½	8
Madras	1*	..	1	..	2	1	2	1	..	..	..	..
Bombay	..	1*	..	1	..	..	1*	..	..	1	1	1*
Bengal	..	..	2	..	1	..	1	..	1	..	..	..

*These are night shifts.

Overlapping shifts are worked in some concerns, which work more than three shifts. Overlapping shifts are usually worked by separate sets of workers. The working hours vary between 7-1|2 and 10 a day and 45 and 51 a week.

Ventilation, Lighting, Congestion, Flooring, Protection against Heat, etc.— The condition of ventilation, lighting, etc. are in most cases fairly satisfactory. War-time expansion in employment did not have a corresponding expansion in the space of the workshops, because of war-time restrictions on construction. The result is that certain sections of the factory, such as the foundry, the carpenters' workshop, the smithy, the fitting and machine shops, etc., have been over-crowded. In a Punjab foundry, the hot-mill was found to be quite dark, while some other places, where bars and scarps were being cut, were very congested. On an average, however, a worker gets about 84 sq. ft. floor area. The following table gives some figures in this respect.

TABLE 60.

Floor Area per Worker.

Province or State	Concern	No. of workers	Floor area per Worker (in sq. feet).
Bombay	I	596	56
	II	2,085	14
	III	1,706	167
	IV	275	122
	V	238	30
	VI	393	90
	VII	250	110
	VIII	228	90
	IX	1998	12
U.P.	I	3356	50
Bihar	I	2696	112
	II	3637	194
Baroda	I	30	50

The details about Bengal concerns are given below :

TABLE 61.

Ventilation, Lighting and Congestion in Bengal.

Concern	No. of workers	Area (in sq. ft).	No. of Lights	No. of windows	Area of each Window
I	80	13,860	51	10 6	7′ × 4′ 5′ × 5′
II	30	5,448	32	32	3½′ × 2′
III	1,034	46,530	..	..	..
IV	83	2,160	42	22	4½′ × 3′
V	51	11,520	..	40	6½′ × 3′
VI	66	3,400	..	13	doors (with total area 438 sq. ft.)
VII	892	1,10,934	..	210	5′ × 2½′
VIII	1,485	1,21,770	..	..	..
IX	278	90,000	..	..	..
X	841	2,76,500	..	..	..
XI	1,400	3,00,000	..	..	..

NOTE.—Besides the windows, there are many doors.

A number of workshops are sheds with high corrugated iron roofing generally open on three or four sides. The floor is earthen in the foundry and paved in the machine shop. In most of the concerns owned by Government or public bodies, the workshops are well constructed with high roofs in a large compound. Lighting is adequate, there being natural light as well as electric light. A good deal of work on wood and metal is done in the open in many concerns. This is rather unsatisfactory in hot places like Bombay and Madras as the sun's heat is scorching practically throughout the year. The tin sheds also prove very hot and oppressive in summer.

Shelters.—Only 17 concerns (Madras, 4; Bombay, 3; Bengal, 5; U.P., 2; Punjab, 2 and Bihar, 1) have provided rest shelters for their workers. The details of some of these are given below.

TABLE 62.

Rest Shelters.

Province	Con-	No. of workers	No. of shelters.	Area	Remarks.
Madras	I	607	..	120′ × 10′	Brick walls, corrugated iron roofing.
Bombay	II	150	1	1000 sq. ft.	Cement floor
	I Males	2,246	1	..	Dining room and a rest-hall
	Females	259			only for female staff.
	II	75	1	15′ × 12′	..
	III Males	189	4	(i) 225 sq. ft.	4 rooms (15′ × 15′) with seats
	Females	86			and tables for girls.
				(ii) 30 × 30′	Tiffin canteen with seats and tables for men.
				(iii) 40′ × 20′	Shelter-shed without seats or tables.
				(iv) 40′ × 20′	Change-room with seats and tables.
Bengal	I	70	1	16′ × 22′	
	II	30	1	15′ × 24′	
	III Males	3,579	1	75′3″ × 20′0″	For male workers
	Females	134	1	37′9″ × 20′9″	For female workers
	IV	8,357	1	75′ × 20′	
	V	1,500	1	75′ × 20′	
Bihar	I Males	3,614	3	(i) 39′ × 24′	Two dining halls
	Females	143		(ii) 39′ × 24′	
				(iii) 17′ × 11′	For female workers.

In other cases, during rest intervals workers go to their houses or utilise the space in the workshop or in the compound outside the workshop. It may be mentioned that in Madras it is obligatory for concerns employing 150 men or more to have a shelter. In another Madras concern, the tiffin rooms are partitioned for different communities and there is a separate tiffin room with tables and benches for Anglo-Indians.

IV.—Welfare Activities.

Sanitary arrangements in the case of big mofussil factories, which have provided housing accommodation for their workers, are generally common for all workers whether resident or not. Such arrangements are in existence in Jamshedpur (Bihar), Burnpur (Bengal), Bhadravati (Mysore), and in some other places and will be studied later in this Chapter. In this section, sanitary and other arrangements inside the workshop compound of a few factories have been described. The following table gives the number of latrines and urinals in 39 factories.

TABLE 63.

Latrines and Urinals.

Province	No. of concerns	No. of Workers employed	No. of latrines	No. of urinals	No. of workers using one latrine or urinal.
Madras	6	1,282	35	34	34
Bombay	12	10,852	206*	76	38
Bengal	15	16,531	202	82	57
U.P.	1	210	6	24	7
Punjab	5	574	34	4	15
Total ..	39	29,449	483	189	44

* These include 8 latrines for 122 female workers in 3 concerns.

Besides, in two Bengal concerns employing 4,730 and 5,488 workers, there are 5 and 10 septic tank latrines respectively. The sanitary arrangements in the former company are given below :

TABLE 64.

Sanitary Arrangements in a Bengal Factory.

	Structural works	Mechanical and wagon works
Total number of workers including batches working in different shifts	1,875	2,855
Maximum No. of workers in a single shift	1,275	2,148
Existing Sanitary Arrangements ..	(i) One new Septic Tank Latrine with Rotating Sprinkler to filter bed-capacity (700 users) with 7 external urinals.	(i) One new Septic Tank Latrine with Rotating Sprinkler to filter bed for 700 users, with 7 external urinals.
	(ii) One Septic Tank Latrine Capacity —1000 users.	(ii) Two Septic Tank Latrines each for 700 users.

Water supply seems to be fairly adequate. The six Madras concerns have 25 water-taps, one hand-pump, one bore-well and two water-tanks. In Bombay also water-taps are common and 8 of the 12 concerns have provided 65 water-taps. Washing facilities, mostly by means of water-taps, are provided in all the 12 concerns. One of these concerns, employing about 2,000 workers has 37 washing taps and 25 shower baths. In Bengal, tube-wells seem to be common. 11 concerns have 12 water-tanks, 9 tube-wells, 1 well, 4 water-reservoirs (with capacity ranging from 400 to 4,000 gallons) and a number of taps. In two factories (under one Management), employing altogether 9,857 workers, there are 74 latrines for males and 9 for females, 13 urinals, 219 drinking water taps, 2 bathing tanks, 7 ranges of shower baths with 52 taps for bathing and washing for use by labourers. The Punjab factories utilise hand-pumps and water-taps for water supply. One of the Punjab factories employs 4 women, but there are no separate latrines for them. In most of the Provinces, one of the most frequent remarks in the Factory Inspection Book is that the lime-washing and tarring of latrines is over-due. The examination of sanitary arrangements is under the jurisdiction of the Public Health Staff, and it is alleged that there is no proper co-ordination between this staff and the Inspectorate of Factories. In many cases, there are no separate urinals and water is supplied through Municipal water-taps or through a water reservoir with a few taps. In some cases these reservoirs need cleaning. Cool water in summer is supplied in 25 concerns (Madras, 5 ; Bombay, 4 ; Bengal, 4 ; U. P., 2 ; Punjab, 2 ; Bihar, 4 ; Baroda, 3 and Mysore 1) through various means such as earthen jars, filters, etc. In a Jamshedpur factory, for example, there are three systems for supplying drinking water : (i) Spray system supplies filtered water to employees throughout the Plant. There are 90 sprays in service. (ii) Tap system also supplies filtered water either by means of cooling coils or direct refrigeration. (iii) Bottled aerated water is supplied to all the departments free of cost. Ice also is supplied free to all departments either for cooling aerated water or drinking water. The capacity of Aerated Water Plant is 15,000 bottles per day while that of the Ice Plant is 15 tons per day. In another Bihar factory, filtered water is available at numerous points throughout the plant and cool water is supplied during summer together with ice and soda water, free of charge.

Medical Aid.—Medical aid in General Engineering industry varies from well-equipped hospitals to ordinary First Aid Boxes. The arrangements can be broadly classified as follows :—

TABLE 65.

Medical Aid Arrangements.

Medical Arrangement	Number of concerns having the arrangements in							
	Madras	Bombay.	Bengal.	U.P.	Punjab.	Bihar.	Baroda.	Mysore
Hospitals	..	..	3	..	..	3	..	1
Dispensaries	1	4	9	..	2	1	..	..
Private practitioners	1	2	3	..	2	..	..	..
Dispensary of a sister concern	..	1	..	..	..	..	1	..
Contribution to General Hospital	..	1	1	..	..	..	..	..
First Aid Boxes	7	10	6	3	1	..	2	..

One of the three hospitals in Bengal has 4 beds for indoor patients, but there have been no indoor patients up till now : The hospital is in the charge of a whole-time doctor and on an average 10 cases are treated every day. The hospital of another Bengal factory comprises Medical, Surgical and Maternity Wards and also infectious diseases blocks for cholera, small-pox, typhoid and meningitis cases. There are three branch dispensaries, where First Aid and preliminary treatment are given. In addition, there is a Town Dispensary in operation and one more under construction. Approximately 894 cases in the outdoor and 51 cases in the indoor section are treated per day. There are 17 doctors, including the Chief Medical Officer. Four of them are M.Bs. and the rest are L.M.Fs. The third Bengal factory, having a hospital, has also three dispensaries and a Maternity Clinic. The Chief Medical Officer is L.M.F., L.T.M., and he has seven Assistants, six of whom are L.M.Fs. and one is an M.B. The cases treated per day (in 1943-44) were 612. Three of the four factories, investigated in Bihar (Jamshedpur) have maintained well-equipped hospitals. One of these hospitals has 20 beds and the medical staff consist of 33 whole-time doctors (including those at Branch Dispensaries and First Aid stations), 4 dental surgeons, 44 registered nurses and 18 probationer nurses, besides a large number of compounders, dressers, ward boys, etc. The hospital has the following clinics : (i) x-ray clinic, (ii) V.D. clinic. (iii) Ear, Nose and Throat clinic. (iv) Eye clinic. (v) Fracture clinic. (vi) Dental clinic, and (vii) Anti-Rabic clinic. The Maternity Ward in the hospital is in charge of a fully qualified graduate Lady Medical Officer and has 24 beds, including six beds for children. A Gynaecological Ward with 18 beds is also maintained. There is also a Maternity and Child Welfare clinic. The average number of cases treated every day at the dispensaries is 4,142. The emoluments of the doctors among whom some have foreign degrees are as follows :—

Chief Medical Officer	Rs. 950—50—1200 p.m.
Deputy Medical Officer	Rs. 750—50/2—900 p.m.
Medical Officer	Rs. 500—25—700 p.m.
Medical Officer	Rs. 300—25—500 p.m.
Lady Medical Officer	Rs. 300—25—500 p.m.
Resident Medical Officer	Rs. 160—10—300 p.m.
Asstt. Medical Officers	Rs. 120—15—270 p.m.
Asstt. Medical Officers	Rs. 80—10—180—10/2 200 p.m.

The hospital of another Bihar factory is staffed by 3 fully qualified L.M.P. doctors, 1 lady doctor, 1 matron, 5 nurses, 3 dressers, 6 compounders and 10 sweepers. The third Hospital has 2 M.B.B.S. doctors and 1 L.M.F. The salaries of the doctors vary between Rs. 130 to Rs. 440 per month. The hospital has an out-patient department and 11 beds. Total number of cases treated daily in 1944 was as follows :—

TABLE 66.

Cases Treated in a Bihar Factory.

	Average number of cases treated per day in 1944		
	New	Old	Total
Employees	61	182	243
Non-Employees	56	167	223
	117	349	466

NOTE :—Average number of indoor patients was 23 per month.

The hospitals in Bihar factories maintain Ambulance cars. The hospital in the Mysore factory, though small, is equipped with an X-ray apparatus, an Ultra Violet Ray Apparatus, an Ambulance Car and an inpatient ward with 12 beds. It has among others, a Medical Officer of the grade of an Assistant Surgeon and two Sub-Assistant Surgeons. A Women's and Children's hospital and a Maternity Ward with 18 beds have also been established. In all the six hospitals, treatment is free both for the workers and for their families.

Some details about 15 of the 17 dispensaries in the sampled factories are given below. The system in all cases is allopathic.

TABLE 67.

Dispensaries.

Province	Concern	Doctors' Remuneration (Rs. p.m.)	Doctors' Qualifications	Cases treated per day	Remarks.
Madras	I	..	..	70	Part-time (2 hours) doctor whole time compounder.
Bombay	I	..	..	17	No doctor, but a qualified dispenser.
	II	750	L.M.& S. L.M.R.C.P. D.T.M.; L.M.	175	
	III	..	..	30	Doctor attends only twice a week. Total medical cost is Rs. 440 p.m.
Bengal	I	..	M.B.	20–25	
	II	..	L.M.F.	..	..
	III	65	M.B.	25	Part-time Doctor. Two compounders on Rs. 42 and Rs. 30 p.m.
	IV	50	L.M.F.	..	In addition the Company pays a contribution of Rs. 50 per annum to a General Hospital.
	V	174	M.B.	100 to 125	
	VI	460	M.B.	145	Compounder and dressers are also employed.
	VII	35	Compounder	..	
	VIII	253	Graduate in Medicine	115	
		128	L.M.F.		
		104	2 Lincentiates		
Punjab	I	400	M.B.B.S.	136	3 compounders and 1 dresser are also employed
	II	160	L.M.P.	60 to 70	Part-time doctor ; there is a whole-time compounder.
Bihar	I	175	L.M.F.	175	

Private practitioners are engaged by eight concerns, three of which pay each Rs. 25 per month, one pays Rs. 50 per month, while the remaining four concerns pay the doctor according to the number of cases he treats. Contributions to General Hospital are made by two concerns, one each in Bombay and Bengal (No. IV in the above table) ; these contributions are in addition to the payment of the bills charged by the hospitals. The Bombay factory, for example, contributed Rs. 200 in 1943 to the J. J. Hospital, in addition to Rs. 77 charged by the hospital for the cases treated.

Periodical medical examination of workers seems to be almost completely absent, except for those working in the Benzol Plant in a Bihar factory. These workers are examined every six months. Gasmen, Emptiers, Cranemen, Carpenters, etc., are prone to respiratory affections. Rammer coolies sometimes suffer from Byperkeratoses of hands. The common diseases are given in the following table. They relate to an Outdoor Charitable Dispensary managed by a Bengal factory, employing 2,085 workers.

TABLE 68.

An Outdoor Charitable Dispensary in Bengal.
Diseases Treated in the Year 1944.

Months.	Injury	Ring worm	Scabies	Eye disease	Ear disease	Malaria	Influenza	Mumps & chest cases	Ven. disease	Ulcer	Disease of Rectum	Disease of Throat	Cellulitis	Caries tooth	Hernia & Hydrocele	Nose disease	C.S. Fever	Intestinal Disease	Total
January	259	81	84	70	20	112	154	5	..	254	3	31	11	20	..	8	..	261	1353
February	252	70	50	50	19	83	156	4	..	183	5	32	21	28	1	8	..	178	1140
March	262	99	87	102	26	84	193	17	1	225	8	37	15	44	1	7	..	237	1445
April	234	125	92	112	14	107	187	8	..	232		40	13	33	1	8	..	309	1521
May	213	176	163	132	39	159	88	10	..	297	7	24	22	34	..	8	..	358	1730
June	252	137	145	115	21	112	95	10	..	229	3	33	20	46	..	6	..	334	1558
July	232	202	189	126	27	115	103	8	..	249	6	44	18	44	3	9	..	350	1725
August	172	162	158	115	21	109	109	13	..	197	4	28	16	38	..	11	..	325	1478
September	142	91	60	70	37	154	160	8	..	135	5	31	21	32	1	8	..	156	1111
October	154	85	89	116	8	151	159	9	..	180	5	28	22	28	1	..	..	228	1263
November	115	77	90	115	..	128	203	9	..	178	3	41	16	36	1	5	..	256	1273
December	111	58	83	61	14	68	210	32	1	230	..	35	5	19	..	..	1	257	1185
Total ..	2398	1363	1290	1184	246	1382	1817	133	2	2569	55	404	200	402	9	78	1	3249	16782

Canteens.—Out of the 65 concerns, only 24 have provided canteens for their workers as follows :—

TABLE 69.

Canteens.

Run and managed by	Number of factories having canteens in						
	Bombay.	Bengal	U P.	Bihar	Baroda	Mysore	Total
Company	3	1	..	1*	..	..	5
Contractors	8	2†	1	2	2	1	16
Workers' Co-operative concerns ..	..	3	..		..	..	3

*This factory has two canteens.

†One of the canteens is run by Indian Tea Market expansion Board.

In the case of canteens managed by workers, the establishment charges (cost of light, water, fuel, servants, etc.), are generally borne by the Company and hence the rates charged in canteens run by the Company or by the workers are generally lower than in those managed by contractors. In many cases, some concession is given to workers in the absence of a canteen. For example, free tea is given to night-shift workers in a Madras concern and to overtime workers in a Bombay concern. In a Bengal factory, workers get the midday meal free from the canteen run by the Company. Most of the canteens in the above table serve only tea and light refreshments. Some factories in Bengal and Bihar, however, provide meals also, while the Mysore canteen sells rice-packets at nominal rates of Re. 0-0-9 and Re. 0-1-6 each. In a Bihar factory on an average about 15,000 meals and light refreshments are served daily in two shifts at the two canteens. The canteens are not open at night. They are housed in two large buildings each divided into different sections for cooking and serving meals separately to Hindu vegetarians, Hindu non-vegetarians and Muslims (with whom Christians are included). Thus there are in fact six separate canteens. Another Bihar factory has also separate canteens for Hindus and Muslims.

Creches and Education.—The sampled factories employed in 1944, in all 5,244 women workers, out of which 4,564 were in Bihar factories. In Bombay, female labour employed in factories comprises mostly unmarried young girls and hence the necessity of creche does not arise. Two of the Bihar factories (employing 6,445 and 143 women) maintain creches. In one of these, there are three specially designed permanent combined Rest Houses (for women employees) and Babies' Creches, located at convenient places near the place of women's work and the construction of three more such buildings is in hand. A trained nurse assisted by women helpers is in charge of each permanent centre. In the other factory in Bihar, the creche is attached to the hospital, and is in the charge of a qualified Matron, assisted by trained staff. Suitable food as well as medical care and supervision is provided and mothers are given time-off during working hours to visit their children.

Educational facilities are provided only by 8 factories as follows :—

TABLE 70.

Educational Facilities.

	Number of concerns providing Educational facilities			
	Bengal	U.P.	Bihar	Mysore
For Children only	2	..	1	..
Both for Adults and Children	1	1	2	1

Free primary schools for the children of workers are maintained by four factories in Bengal, while only one of them conducts evening classes for adult workers, where Metallurgy, Metal Engineering, Mathematics and Drawing are taught. This factory maintains two English High Schools also —one for boys and the other for girls. The U. P. factory has a part-time adult school in which workers and their children are taught. The classes are held in the factory premises from 4 to 5-30 p.m. and about 25 workers get tuition. One of the Bihar factories has provided in Jamshedpur 2 high schools, 8 middle schools, 6 upper primary schools, 13 lower primary schools, 9 night schools and one technical night school. These schools mainly teach Hindi, Urdu, Bengali, and Oriya. In 1939, there were about 15,000 students (boys and girls, but now the number is less because of military requisition of some of the buildings). In 1938, several Mass Literacy Centres were started and these were attended by 7,128 men and 1,296 women. These centres had to be closed because of lighting restrictions. The percentage of literacy in Jamshedpur is 43 for men and 24 for women. Another factory in Jamshedpur has provided (i) a school which includes Lower Primary, Upper Primary and Middle English classes, at a cost of Rs. 34,384 ; and (ii) a Harijan School for Harijan and poor children. The cost of construction was Rs. 2,250 and the number of pupils 132. In addition the Company grants subsidy to an Andhra School, Hindustan Mitra Mandal and Utkal Samaj. Night classes are held for adult workers. A large Primary School to cater for 400 pupils has also been designed. A third factory in Bihar has recently started a School, where lady teachers train workers' children through the medium of English, Bengali and Urdu. In the Mysore factory, literacy work is carried on by means of Adult Classes, Reading Rooms, periodical lectures, radio-talks, Hari Kirtans and Bhajans. For workers' children, there are ten schools, seven of which are run by the Welfare Committee and two by Government. Lastly, it may be mentioned that one of the Bombay factories grants scholarships to the deserving children of workers.

Grain-shops.—Provision has been made in 38 concerns (Bombay, 14 ; Bengal, 14 ; U. P., 3 ; Bihar, 4 ; Baroda, 2 and Mysore, 1). None of the concerns investigated in Madras or Punjab maintain grainshops, as provisions are available at controlled rates in the Ration depots in the city. Out of the 14 grainshops in Bengal, seven supply the commodities as prescribed under the Government Rationing order at subsidised rates, while two shops follow the recommendation of the Bengal Chamber of Commerce in supplying foodstuffs to their employees. In U. P. also two out of the three grainshops have rates lower than the market rates. In one of these two shops the rates have been fixed by the Employers' Association of Northern India. In Bihar, all the Factory Grain Shops have been taken over by Government, but the actual management is still in the hands of the factories. A rebate of

Rs. 3-11-0 and Rs. 2-8-0 per month on food-stuffs is given to married and single men at present. Before the introduction of rationing, employees in a Bihar factory were allowed to purchase the following quantities of food-grains per week at reduced rates from Company's Grain Shops.

TABLE 71.

Pre-war Rates of Grains in a Bihar Factory.

Commodity	Married employees	Single employees	Price per seer.
Rice or wheat	8 seers	5 seers	Re. 0-4-0
Dal	1 seer	1 seer	Re. 0-3-9 (Massoor)
		..	Re. 0-4-9 (Arhar)
Sugar	3/4 seer	3/4 seer	Re. 0-6-6

In a Baroda factory, the commodities are supplied at a rate which is 4 as. to 8 as. per maund less than the market rates. In the Mysore factory, the Co-operative Stores purchases and sells the articles at controlled, rates the administrative expenses and losses, if any, being borne by the Company.

V.—Housing.

The necessity of providing housing to employees is obvious in the out-of-way industrial areas, such as Jamshedpur, Bhadravati, etc. The workers employed in factories located in cities like Bombay, Cawnpore and Madras live in slums or in their own huts far away in the suburbs. In all 48 factories were investigated in the cities of Madras, Bombay, Ahmedabad, Calcutta and Howrah, Cawnpore and Baroda but except for the two factories in Howrah, none has provided any housing for their workers. As the following table shows, provision of housing to workers is more common in mofussil industrial areas than in urban centres.

TABLE 72.

Housing provided by Employers.

Province	Location of Concern.	Proportion of workers housed	Type of housing provided	Rent Rs. p.m.
Bombay	Dapuri (5 miles from Poona)	49%	Single and double room tenements of bricks.	..
Bengal	Hirapur	55%	Pucca quarters (a room, enclosed courtyard, kitchen and verandah).	Nil
	Kulti	36%	Pucca (brick-built wall with terrace roof or C.T.) and Kutcha (walls with straw thatching) houses as follows : Indian Family Quarters—114, Indian Mess Quarters 6, Boarding House—1, Indian Institute-1, Pucca Labour Quarters-1,447, and Mud-huts-347.	Nil
	Howrah	10%	Pucca and Kutcha houses with corrugated iron roofs.	Nil
	Howrah	12%	Kutcha rooms (for coolies and Darwans).	(6 as. for coolies Re. 1 for Darwans.)
Punjab	Lahore	3	22 single semi-pucca rooms (for technical and maintenance staff.	Nil
	Lahore	33%	6 pucca quarters (for Chowkidars)	Nil
Bihar*	Tatanagar	34%	8,315 quarters and 293 bungalows	Re. 1 to Rs. 40
	Golmuri	59%	931 pucca houses	Rs. 2-4-0 to Rs. 20
	Tatanagar	13%	350 quarters and 8 bungalows	Rs. 4 to Rs. 25.
Mysore* . ..	Bhadravati	24%	All types (from cottages to bungalows).	Rs. 1-8-0 to Rs. 50

*Details of Bihar and Mysore factories are given below.

Jamshedpur or Tatanagar is a proprietary industrial town owned by the Tata Iron and Steel Co., Ltd. This Company started working in December 1911 and the number of workers has increased from 7,000 to 38,473. Some Associated Companies have been established on land leased to them by the Steel Company, which also supplies them with water and power as well as their chief raw materials, e.g., pig iron, steel billets, plates, sheets, roda, etc. Jamshedpur, a small industrial centre with 5,672 persons in 1911, has become one of the bigger towns in India with a population of 143,110 persons in 1941. The Steel Company has provided roads, trains, filtered and unfiltered water supply, sewage system, markets, schools, electricity, conservancy, play grounds, parks and recreational facilities, etc. The offices of the Central and Provincial Governments have also been set up. Both the Steel Company and the Associated Companies have their own schemes of housing their employees. The Steel Company, in addition, has provided planned Basti and residential areas, where employees of all the companies have erected their own private residences. The Steel Company has built up to date 8,428 quarters, of which 293 are bungalows for officers and senior supervisory staff. An abstract of the 8,315 quarters for workers is given below in tabular form.

TABLE 78.

Housing provided by the Tata Iron and Steel Company, Ltd., Jamshedpur.

Type of Quarter	No. of Quarters	Rent Rs. p.m.	Details of accommodation provided in quarters								Front Garden Space.	Other Facilities
			Living Rooms	Other Rooms.	Verandahs	Court-yard	Kitchen	Store-Room	Bath-Room.	Latrine		
RN		1 to	1	..	..	1	..	..	..	..	1	
RM	462	1-8-0										
N												
RMR		2-4-0 to 3-8-0	1	..	1	1	..	..	..	..	..	
Assistant Mistresses' Quarters ..	11	11	1	..	2	1	1	1	..	..	1	
Works Guards Quarters ..	223	3	1	..	1	1	1		P	1	1	Bath room water closet.
Conservancy Staff												
N1	556	3-2-0	1	..	1	1	1	..	P	..	..	
N2	200	3-0-0	1	..	1	1	1	..	P	..	..	
RN1	469	2-4-0	1	..	1	1	1	..	..	..	..	
M2	470	4-0-0	1	..	1	1	1	..	P	1	..	
S	192	5-0-0	1	..	1	1	1	1	P	1		
Miscellaneous ..	88	1-8-0 to 3	1	..	1	..	1	..	..			
Chawls	96	4-0-0	2	..	1	..	1	..	P	..	..	
TR	1310	6/- to 6-8-0	2	..	1	1	1	..	P	1	1	
L1	388	7-0-0	2	..	1	1	1	..	P	1	1	
L2	478	9-0-0	2	..	1	1	1	..	P	1	1	
L3	331	9-0-0	2	..	2	1	1	..	P	1	1	
L4	514	8-8-0 to 9	2	..	2	1	1	..	P	..	1	
LH	50	14-0-0	2	..	2	1	1	..	1	..	1	Water-closet.
H1	22	17-4-0	2	2	1	1	1	..	P	1	1	
H2	183	16-0-0	2	..	1	1	1	1	P	1	1	
H3	24	21-0-0	2	..	..	1	1	1	P	1	1	
H4	48	21-0-0	2	..	1	1	1	1	P	1	1	
H5	16	21-0-0	2	1	2	1	1	1	P	1	1	
H6	494	19-0-0	2	..	2	1	1	1	P	1	1	
G2	24	20-4-0	2	..	1	1	1	1	1	1	1	
L5	184	12-8-0 to 13	3	2	2	1	1	..	1	1	1	
G	36	24-8-0	3	2	2	1	1	..	1	1	1	
G1	36	19-12-0	3	..	2	1	1	..	1	1	1	
G4	40	28-8-0	4	..	2	1		1	1	1	1	
G5	9	25-0-0	3	..	2	1	1	1	1	1	1	
P	30	30-0-0	3	1	2	1	1	1	1	1	1	
P1	8	32-0-0	5	2	1	1	1	1	1	1	1	
P2	8	40-0-0	4	1	2	1	1	1	1	1	1	Water closet washing platform.

NOTE.—(i) P in Bath-room column means a bathing platform.
(ii) Types H2, H3, H4, H6, H5, G2, G, G1, G4. G5, P, P1, and P2 have water connections inside.

Another Bihar concern has built 931 pucca houses. 500 houses, kutcha and semi-pucca, have been built by workers themselves in the Company's leased area with the assistance of building loans from the Company. These loans are granted at 3 per cent. interest and are repayable by easy instalments. The total number of employees housed is about 2,200 and the rents charged for Company's quarters range from Rs. 2-4-0 to Rs. 20 per month. The details of the housing are given below :—

TABLE 74.

Housing Provided by another Bihar Company.

Type.	No. of quarters.	Rent (Rs. p.m.)	Rooms	Details of accommodation provided in the quarters			Bath-room	Latrine	Other Facilities.
				Verandahs	Court-yard	Kitchen			
RN	48	2-4-0	1 (10′ × 9′)	1 (10′ × 3′3″)	8′ × 10′	..	..	..	1 cooking place
N2	44	3-4-0	2 (12′ × 8′ and 7′ × 5′)	1 (4′3″ × 5′)	12′ × 8′	..	..	..	,, ,, ,,
M2	44	3-4-0	2 (12′ × 9′ and 7′ × 7′)	..	16′9″×9′6″	..	..	4′ × 4′	,, ,, ,,
M3	76	4-0-0	2 (12′ × 8′ and 7′ × 7′)	1 (4′3″ × 7″)	16′9″ × 9′6″	..	..	4′ × 4′	
M4	136	5-0-0	2 (12′ × 9′ and 8′ × 9′)	1 (3′6″ × 3′6″)	18′9″ × 14′)	5′ × 5′6″	..	4′ × 4′	
Modified M4 ..	40	6-0-0	2 (10′ × 10′ and 11′×9″)	1 (4 9″ × 9′)	13′ × 18′	6′ × 5′	..	4′ × 4′	Washing platform (4′ × 4′).
L4	307	7-4-0 and 8-0-0	2 (10′ × 10′ and 11′×10′)	2 (10′ × 5′10½″ and 10′ × 5′3″)	20′ × 21′	8′ × 8′	4′ × 4′	4 × 4′	
L2	50	8-0-0	2 (12′ × 11′ and 11′×9′)	2 (12′×3′3″ and 9′×3′3″)	1242 sq. ft.	8′ × 8′	4′ × 4′	4′ × 4′	
H6	10	10-0-0	2 (12′ × 12′ each)	2 (24′9″ × 4′3″) and 20′ × 4′3″	960 sq. ft.	13′ × 8′	4′ × 4′	4′ ×4′	Store-room (8′ × 8′)
G4	25	15-0-0	3 (12′ × 12′ each)	2 (24′9″ × 4′3″ and 20″ 9′ ×8″)	20′ × 20′	12′ × 8′	6′ × 4′	4′ × 4′	Store-room(8′ × 8′)
G	8	15-0-0	3 (12′ × 12′ each)	2 (12′ × 5′3″ each)	1418 sq. ft.	12′ × 8′	4′ × 4′	4′ × 4′	Store-room (10′×8′)
SD	6	15-0-0	2 (16′6″ × 14′ and 16′×14′)	2 (14′ × 9′4″ and 15′ × 6′2½″)	..	13′ × 10′	Common	(7′×8′3″)	Pantry (8′ 3″ ×8′ 3″) Servants' room (10′ × 10′)
Q	25	20-0-0	3 (18′6″ × 14′ and 2 of 14′ × 14′)	2 (14′ × 9′ and 6′ × 6′)	..	13′×10′	7′3″×8′	7′ × 4′	Pantry (6′ 5″ × 9′ 3″) Servants' room (10′ × 10′).

NOTE.—(*i*) Besides there are 92 (48 one-room and 44 two-room) quarters, all rent free for the Watch and Ward Staff.
(*ii*) Types 12, H6, G4, G, S.D. and Q have inside water taps.
(*iii*) Total population in Company's Quarters is 4, 831 out of which 1,329 are children (below 12 years).
(*iv*) 89 sweepers and 3 Sanitary Inspectors in charge of a Medical Officer of Health to look after general conservancy.

The third company investigated in Tatanagar has the following types of quarters :—

TABLE 75.

Types of Quarters and Rents in a Bihar Factory.

Type	Rent (Rs. p.m.)	Electricity charge
TA	7	Re. 1 p.m.
T	4	Re. 0-11-0 p.m.
L4	10	
L5	18	Re. 0-1-3 per unit with a minimum of Re. 1.
G4	25	
Officers' bungalow	30	

The fourth Bihar factory has no housing accommodation, but a scheme to build houses is under consideration. At present there are a few quarters which can be classified into four types according to accommodation contained : (a) 3 rooms, kitchen, a bath room, flush latrine and water taps ; (b) 2 rooms, and kitchen with water-tap and (d) 2 rooms and kitchen, with basket-type latrines. The rents for these types are Rs. 12, 5, 4, and 4 respectively and all are fitted with electric lights. Near the Bhadravati Works in Mysore, a large colony, called the New Town has come into existence and is being developed according to a plan. It is provided with well-laid out streets, underground sewage, street and house electric lights and water-taps, flush latrines, etc. The sanitary arrangements are supervised by a Sanitary Board. Colonies of workers' quarters have sprung up at present in three linguistic groups, inhabited by the *Kannadigas, Tamils* and *Telugus*. Most of these colonies have been built by the workers themselves, with materials supplied by the Works and on sites provided at a nominal rent of 2 as. per site. In two of the colonies, houses have thatched roofs, while in the third they have zinc sheet roofs. Houses are laid out in lines, each quarter having a verandah, a room and a kitchen. The floor is earthern. New tiled quarters have two rooms and a kitchen each and are provided with taps and lights. A community Centre and a school for each colony are now being constructed. The total number of houses of all types, ranging from cottages at Rs. 1-8-0 to bungalows at Rs. 50 p.m. built by the Works is 862 ; and the approximate total cost is about 10 lakhs of rupees. About 20 per cent. of the workers live in the old town in private houses, where rents are high, going up to Rs. 7 or 8 per mensem and sanitary conditions and amenities are lacking.

As for the workers for whom housing accommodation has not been provided by their employers, complete data are not available. As mentioned earlier some workers in the Mysore factory and in a Bihar factory have built their own houses with the assistance of their employers. Others live either in city slums or in far-off villages. Of the 38,000 employees of Tata Iron and Steel Works, 12,000 are housed in Company built quarters, 15,000 in Bastis, 2,000 in private residential areas, 4,000 in Jugselai, 4,000 in outlying villages and 1,000 in temporary camps inside the Works.

VI.--Trade Unions and Strikes.

Workers in 18 factories (Madras, 4 ; Bombay, 4 ; Bengal, 6 ; Bihar, 3 ; and Mysore, 1) have organised trade unions in their concerns. In addition, there are 8 unions (Madras, 1 ; Bombay 5 ; Bengal, 1 and Bihar, 1) which can be called general engineering unions as engineering workers from all factories are eligible for membership. Three of the four Madras unions have been formed in public concerns and claim the membership of almost all workers in the concerns. The subscription per worker is Re. 1 per year in one and 4 as. per month in another. In two concerns at least strikes have been avoided by the union leaders who have successfully managed intricate questions in regard to wage rates, grades and other privileges.

Of the six private concerns investigated in Madras, only one has got a Union which had its origin in a Strike Committee in 1942. The membership of the Union has increased from 300 at start to 700 in 1944. A monthly subscription of 2 as. per member is levied and the Union collected Rs. 432-6-0 in 1942-43, and Rs. 612-2-0 in 1943-44. The Union has been recognised and by means of representations it has been able to secure an enhanced dearness allowance, bonus, reinstatement of 7 dismissed workers, etc. The general union in Madras is known as the Madras General Engineering, Foundry and Smithy Workers' Union, which draws its members from several small concerns in the city, including two of the units investigated.

The details of the General Engineering Unions in Bombay are given below in a table compiled from information available in the Bombay Labour Gazette.

TABLE 76.

General Engineering Unions in Bombay.

Name of the Union.	Factory in which members are employed (with total employment)	Dates of Formation	Registration.	Membership.	Average Income Rs.	monthly Expenditure. Rs.
1. Richardson and Cruddas Employees' Union, Bombay	Richardson and Cruddas (1,706)	Sept. 1939	Decem- 1939	250	34	12
2. Engineering Workers' Union, Bombay	*	Aug. 1939	Feb. 1940	3,008	333	253
3. Godrej and Boyce Workers' Union, Bombay	Godrej and Boyce Manufacturing Co. Ltd. (1,998).	June 1942	April. 1943	1,141	254	57
4. Alcock, Ashdown Workers' Union, Bombay	Alcock, Ashdown and Co. Ltd. (2,202).	July 1942	Dec. 1942	496	..	..
5. Engineering Factory, Kamgar Union, Bombay ..	*	July 1942	Nov. 1942	1,200	..	..
6. Iron Workers' Union, Bombay	*	Dec. 1942	Unregistered.	100	40	13
7. Bombay Iron and Steel Workers' Union, Bombay ..	*	Jan. 1943	,,	1,500	..	..
8. Bombay Telephone Workers' Union, Bombay	Bombay Telephone Co. Ltd. Workshop (2,505).	Nov. 1941	Dec. 1941	1,767	..	..
9. National Engineering Workers' Union, Bombay ..	*	Dec. 1943	June 1944	172	..	..

*These Unions are 'General Unions' i.e., they are open to all workers in General Engineering, though in fact the scope is restricted to not more than half a dozen undertakings.

Unions 1 and 4 in the above table are at present inactive, the former because of the arrest of its leader in August 1942. The Godrej and Boyce Workers' Union is recognised by the employers. Admission fee for membership is one month's subscription, the rate of which is as follows : 4 as. p.m. for those whose basic wage is Rs. 2 per day or less, 8 as. p.m. for those whose basic wage is more than Rs. 2 but not more than Rs. 3-8-0 per day and Re. 1 p.m. for those with a basic wage of more than Rs. 3-8-0 per day. The members are entitled to Retirement (including dismissal and resignation from the Company) Benefit and Death Benefit. As for the former benefit, those who have completed three years of membership shall be entitled to the return of full subscription paid by them after deducting admission fee and Re. 1 per year membership for office expenses. As for death benefit, the family of the deceased member shall be entitled to double the amount of subscription paid by him after making the above-mentioned deductions. The Bombay Telephone Workers' Union has also the same benefits. Its rates of subscription, however, are 2 as. p.m. for those drawing Rs. 30 p.m. or less and 4 as. for others ; the admission fee is 8 as. One of the investigated concerns has entered into an agreement with the general union, " the Engineering Workers' Union ". According to this agreement, the Management has framed rules for its workers regarding attendance, working hours, holidays, discipline, etc.

The table given below gives details about some unions in the General Engineering industry of Bengal.

TABLE 77.

Trade Unions in Bengal Factories.

Name of the Union.	Year of Registration.	Membership	Rate of subscription As. p.m.
1. Iron and Steel Workers' Union	1943	800	..
2. Bharati Iron and Steel Workers' Union ..	1942	150	2
3. Britannia Employees' Union	1944	150	2
4. Britannia Building Labour Union	1944	80	4
5. Britannia Building and Iron Mazdur Union	1942	200	4
6. Jay Engineering Workers' Union	1942	230	2
7. Jessops' Labour Union	1943	155	2

NOTE : Only the first union is a general union.

In the General Engineering industry of Bihar, there are four unions : (i) The Labour Federation, which was formed in 1936 and registered in 1938, (ii) The Tata Workers' Union, which was formed in 1937 and registered in 1938, (iii) The Tinplate Workers' Union and (iv) The Tatanagar Foundry Workers' Union. Except the third, all have been recognised by the employers, though no definite agreement has been reached between any Union and the employers. According to the Mysore Labour Act of 1942, workers in every factory employing more than 100 men are entitled and encouraged to form a labour association. There is thus a Labour Association in the Mysore Iron and Steel Works, Bhadravati, with a worker as its President ; no outsiders are members in it. A subscription of one anna per month is levied. The Association is affiliated to the Indian Federation of Labour.

Works Committees.—Works Committees were found only in 5 investigated factories (Bihar, 2 ; and one each in Bombay, U. P. and Baroda). The Bombay factory has a Workers' Committee and Shop Stewards, whose object is to get redress of any legitimate grievances. A Shop Steward must have at least 5 years' service with the Company and preferably be one of the senior mistries of the department he is elected to represent. Each department will be represented by one man selected by secret ballot of his fellow workers. The period of office of Shop Steward and Workers' Committee is for one year. The Shop Stewards meet the Joint Managers every month ; and the Workers' Committee meets the Managing Agents once a year in August. The Workers' Committee consists of one man from each of the departments, selected by ballot at a meeting of the Shop Stewards to be held in the respective departments. The Workers' Committee first deals with any points brought up by the Shop Stewards of the factory and if they feel they cannot decide any of the points raised, they then instruct the Shop Stewards to place these items on the agenda for the monthly meetings with Joint Managers. In one of the U. P. factories, there is a Works Committee, known as Hitkari Committee, which undertakes to give every kind of facility to the workers regarding safety, sanitation, employment, economic condition, education and other welfare activities. The workers are represented by five of their own men in the Executive Committee. In the biggest Bihar factory, there were Shop Committees some years ago, which, however, worked only for a few months, the workers, as is alleged by the Management, losing confidence in their own representatives. At present, there is a Joint Committee for each of the two unions, consisting of a representative of the Union and the Company's Labour Officer. The function of this Committee is to afford the Unions an opportunity to review or investigate cases in which the Unions are not satisfied with the previous decision of the Management. Up to the present time the unanimous findings of the Joint Committee have invariably been accepted by the management. Another factory in Bihar has a Mill Committee, composed of members of the management and of the Trade Union, to discuss the workers' grievances. A similar Committee, consisting of workers, foremen and departmental heads, is found in a Baroda factory ; it looks into the grievances of the workers generally.

Strikes.—Since the outbreak of the war, strikes and lockouts are ruled out under the Defence of India Rules and disputes have to be submitted for adjudication by the Labour Commissioner. In one of the Bengal factories, a short strike, lasting for about 50 minutes, was staged (see Table below : Concern No. X in Bengal) ; as a result two men were discharged, who were later prosecuted and convicted by the Government under Defence of India Rules. In the Mysore State, the Mysore Labour Act (mostly based on the Bombay Industrial Disputes Act, 1938), requires that a Labour Association should give a notice in the prescribed form to the employer and to the Commissioner of Labour regarding any industrial dispute and proceedings for conciliation should be initiated within 15 days and concluded within a month. The Government may also constitute a Court of Arbitration, the award of which would be binding on both parties. A strike or lockout would be illegal if it is commenced without giving notice or while conciliation proceedings are taking place till 14 days after the publication of the report or while the matter is before a Court of Arbitration or in contravention of a registered agreement, settlement or award. Two of three Mysore strikes in the following table were held illegal. Complete record of all strikes is not available but the following statement gives some details about strikes in investigated concerns.

TABLE 78.
Strike in War time.

Province	Concern.	Details of strikes in investigated concerns.			Result.
		Period.	Duration.	Causes or Demands.	
Madras	.. I	16-1-1941	½day	Protest against orders to stop late attendance.	Successful. Grace-time was granted.
	II	in 1942	3 days	(*i*) Advance for evacuation from Madras. (*ii*) Dearness Allowance as in sister-concerns.	Successful.
	III	July 1942	18 days	(*i*) Dismissal of 2 workers for indiscipline. (*ii*) Adoption of double shift on certain machines.	Unsuccessful.
	IV	April 1940	18 days	Dismissal of a machine-shop mistry.	Concern closed for a while.
Bombay	.. I	December 1941	Few Hours	,, ,, ,,	Compromise.
	II	February 1943	1 month	(*i*) 25% wage-increase. (*ii*) Dearness allowance according to Bombay Millowners' Association scale, (*iii*) 2 months' wages as bonus.	,,
		July 1944	..	Bonus.	Adjudication.
	III	October 1942	..	Increase in dearness allowance, bonus, minimum wage, grain shop etc.	,,
	IV	1943	..	25%wage-increase and 2 months' wages as bonus.	Successful.
Bengal	.. I	August 1942	1 month	Political disturbances in 1942	Adjudication.
	II	October 1939		Certain privileges as holidays with pay.	..
		March 1940 August 1940		Scavengers' strikes ; other workers joined in sympathy.	..
	III	July 1943	..	No specific demands at the time of strike ; but some demands were made later.	Demands when made were met successful.
	IV	1942-43 (Nov.-Mar.)	5 months	Stay-on-strike for wage-increase	Mediation of Labour Commissioner.
	V	January 1942	18 days	Bonus and wage-increase.	Adjudication.
	VI	June 1942	..	..	Successful.
		December 1942	..	..	,,
	VII	October 1940	7 days	Strike by coke-oven men, who wanted to welcome a trade union leader, whose entry was forbidden by Government.	Unsuccessful. 200 men were discharged.
	VIII	18-1-1940	1 hour.	Wage-increase	Compromise.
		11-2-1941	1 day.	,, ,, (strike by crane drivers)	Unsuccessful.
	IX	Jan-Feb. 1942	12 days	Stay-in-strike for wage-increase and enhanced allowances	,,
	X	18-5-1944	50 minute	Wage increase	,, (2 men were discharged ; they were later convicted under D. I. Rules).
U.P.	.. I	in 1944	..	bonus.	Successful. One months wages bonus was given.
Bihar	.. I	August 1942	13 days	Political disturbances in 1942	..
	II	February 1940 October 1940 Nov. 1940 Dec. 1940	Minor strikes	(*i*) Recongnition of Union (*ii*) uniform wages to unskilled workers. (*iii*) General wage-increase, (*iv*) security of service and other facilities as leave, P.F. etc.	Unsuccessful.
Mysore	.. I	Nov. 1941	3 days	Increase in dearness allowance and reinstatement of certain dismissed workers.	Adjudication by Labour Commissioner & Artibitration Tribunal.
		May 1942	18 days	Celebration of May-Day	These strikes were held illegal.
		Aug. 1942	28 days	Political disturbances in 1942	

VII—GENERAL.

Accidents.—The accidents likely to occur in the general engineering concerns are cuts, crushing of fingers, burns and injuries due to the falling of molten or red hot metal etc. The following table gives the details about accidents which occurred in the investigated concerns.

TABLE 79.

Accidents and Compensation Paid.

Province	Concern	Year	Total No. of accidents.	No. of accidents compensated.	Amount of Compensation Rs.	Remarks.
Madras	I	1943	269	41	226	
	II	1943	3	3	92	
	III	1944	1	1	900	
	IV	1943	1	1	250	
Bombay	I	1943	5	2	100	
	II	1943	205	205	13,035	3 fatal cases.
	III	1943	212	..	..	Only leave with pay was granted.
	IV	1943	635	132	3,971	1 fatal case.
	V	1943	4	4	159	
	VI	1943	216	21	569	
	VII	1943	227	27	476	
	VIII	1943	1	1	150	
	IX	1943	1	1	363	
	X	1943	11	6	514	
	XI	1943	23	7	49	
	XII	1943	22	1	35	
	XIII	1943	237	88	2,336	
Bengal	I	1943	30	1	192	
	II	1943	12	..	..	Half the daily rate of pay is allowed for the days of absence.
	III	1944	6	2	1,441	
	IV	1943	37	1	210	
	V	1943	372	270	8863	
	VI	1944	19	19	2,879	
	VII	1943	117	47	1,572	
	VIII	1943	215	215	16,487	Rs. 7,750 for 6 fatal cases, Rs. 6,395 for 15 permanent and Rs. 2,332 for 194 temporary disablement cases.
	IX	1943	203	203	8,345	
	X	1943	903	372	5,881	2 fatal, 107 serious and 794 minor cases.
	XI	1943	315	81	4,412	
U.P.	I	1944	23	19	483	
Punjab	I	1944	..	3	385	
	II	1944	20	11	224	
	III	1944	..	3	49	
	IV	1944	4	4	28	
Bihar	I	1943-1944	1,086	36	44,706	The 36 cases (including 15 fatal) are serious. In addition Rs. 30,469 was paid for temporary disablement cases.
	II	1943	471	274	9,905	These include 4 serious cases costing Rs. 4,788 in lump-sum.
	III	1943	5,930	29	9,000	3 fatal, 6 permanent and 20 temporary disablement cases.
Mysore		1944	180	180	8,219	

Some earlier figures as regards the Mysore factory are given below :

TABLE 80.

Accidents and compensation in Mysore Factory.

Year	No. of cases resulting in						Total amount paid.
	Death	Permanent Disablement.	Temporary Disablement.	Death Rs.	Permanent Disablement. Rs.	Temporary Disablement. Rs.	Rs.
1941-42	3	..	46	590	..	93	683
1942-43	..	6	261	..	1,355	1,545	1,900

Indebtedness.—Indebtedness seems to be fairly common in this industry and it is estimated that about 40 to 60 per cent. of workers are indebted, the extent of indebtedness varying from a few rupees up to Rs. 500. Co-operative Credit Societies were found only in 11 concerns (Madras, 2; Bombay, 5; U. P., 1; Bihar, 2 and Mysore, 1). The rate of interest varies between 6-1|4 per cent and 12-1|2 per cent ; but it is commonly 9-3|8 per cent. per annum. In a Bombay Society, it is 9-3|8 per cent on long-term loans and 12-1|2 per cent. on short loans; while in a U. P. concern these different rates are for members and non-members. The maximum loan in a Bombay Society is limited to Rs 500 or 4 months' pay; the amount advanced by this Society in 1943-44, has been Rs. 1,16,846. In another Society, the total indebtedness on 30th June 1944 amounted to Rs. 2,518. The Tata Iron and Steel Company has encouraged and helped the formation of about 33 Co-operative Credit Societies. The Company also provides free legal aid to indebted employees. During the year 1943-44, about 8,000 employees had borrowed over Rs. 19 lakhs from the Co-operative Credit Societies and about 5,658 workers over Rs. 6 lakhs from the Provident Fund.

The system of granting advances to workers, generally against their wages is fairly common. In Bengal, eleven out of the investigated concerns follow this system. In most cases the amount given on loan varies from month to month. One of the concerns, for example, granted loans amounting to Rs. 50 in October 1944, but did not grant anything during the next three months. Most of these loans are free of interest. In one Bengal concern, however, advances amounting to more than the wages earned, are given on 3 per cent interest. The extent of advances in some of the concerns investigated can be seen from the following figures.

TABLE 81.

Advances granted to workers.

	Concern	No. of workers employed.	Period	Amount of advances granted. Rs.
Bengal ..	I	70	December 1944	170
	II	30	October 1944	50
	III	1,290	Year 1944	4,[illegible]0
	IV	2,085	Year 1944	12,795
Baroda ..	I	248	Year 1943-44	3,970

In the Baroda factory, loans amounting to Rs. 3.970 have been granted to 41 workers, the amount in individual cases varying from Rs. 25 to Rs 400. The loans are recovered in easy instalments of Rs. 5 to Rs. 25 per month.

Provident Fund.—Fourteen factories (Madras, 1; Bombay, 4; Bengal, 2; U. P., 1; Bihar, 3; Baroda, 2; Mysore, 1) have Provident Funds. The main features are as follows :—

(i) *Scope.*—The membership of the Fund is generally open to permanent workers, though other restrictions such as income-limit, period of service, etc. are also put in. In the Madras factory, the Fund is open to all permanent workers. In five concerns, persons getting less than a specified amount (Rs. 15, 20 or 25) per month, cannot become members of the Fund. In a Baroda concern, the limit is Rs. 25, but permanent workers getting between Rs. 20 and Rs. 25 per month may, subject to the approval of the Trustees, join the Fund. In one Bihar factory, no covenanted employee can be eligible for membership, while in another factory in the same Province, discretion in this respect rests with the Trustees. In at least four factories, service for a specified period is necessary. In a Bombay factory, it is open only to a worker who has worked for the Company for not less than 200 days in the period of one year or for 300 days in the period of 2 years prior to the date he applies for membership. In two factories, the condition is one year's approved service while in one (Mysore) it is three years. In all cases, the decision of the Trustees is final.

Contributions.—The usual rates of contribution by the members are (i) 6-1|4 per cent or one anna per rupee of the salary of wages earned by the contributor every month or (ii) 8-1|3 per cent. or one anna and four pies per rupee. Out of the investigated factories four have the first rate while seven have the second; in one factory, the contribution is not to exceed 8-1|3 per cent. of wages. The rate in the Madras factory is 7 per cent. while in one of the Bombay factories it is 4-11|19 per cent. (9 pies per rupee). In some cases, for the calculation of percentages, wages include all allowances while in others only basic wages are considered. In all cases the employer credits to the Fund a sum which is equal to the aggregate contributions made by the members of the Fund. In the U. P. factory, the employer's contribution is subject to a provision that no contribution beyond one per cent. of the members' subscriptions for the year shall be made to the Fund on the part of the Cmpany. In a Bihar factory, in addition to the usual contribution by the Company, a further sum as below is paid, if the net dividend paid by the Company on its ordinary share capital exceeds 7-1|2 per cent.

TABLE 82.

Additional Contribution by Company to the P. F. in a Bihar Factory.

Rate of net dividend on ordinary shares	Amount of further sum paid by employers
Not less than 7½% and not exceeding 8¾%	One week's wages
Exceeding 8¾% but not exceeding 11¼%	Two weeks' wages
" 11¼ " " 13¾%	Three " "
" 13¾% " " 16¼%	Four " "
" 16¼% " " 18¾%	Five " "
" 18¾% " " 21¼%	Six " "
For each additional 2½%	An additional week's wage.

Conditions of claims on Employer's contribution.—A member on ceasing to be a member can claim all the employer's contribution only if he puts in continuous approved service for a specified number of years. This period is 15 years in 7 concerns, 12 years in one concern, 10 years in one concern and 5 years in two concerns; in one concern, it is 15 years for male workers and 10 years for females. In seven of these concerns, however, the member gets a share of the employer's contribution in proportion to his period of service as follows :—

TABLE 83.

Claim to Employer's Contribution.

No. of years approved service.	Proportion of Employer's Contributions (with interest thereon etc.)					
	I	Bombay for Males	II for Females.	Bengal	Bihar I and II	Mysore I
3						25%
4						
5	(a)	(a)	(a)	(a)		
		33⅓%	50%	50 %		
6		40 %	60 %	60 %		50 %
7	33⅓-%	46⅔-%	70 %	70 %		
8		53⅓-%	80 %	80 %		75%
9		60 %	90 %	90 %		
10		66⅔-%	100 %	100 %	(a) 50	
11		73⅓-%			60 %	
12	66⅔-%	80 %			70 %	
13		86⅔-%			80 %	100 %
14		93⅓-%			90 %	
15		100 %			100 %	

NOTE :—'*a*' shows the minimum limit up to which the employers' contribution cannot be claimed.

In the U.P. factory, a member serving for less than 15 years gets 1|30th of the employer's contribution for each complete half year's service. If a member is dismissed from service for misconduct, he loses his claim, whatever may be his period of service; on the other hand, a member whose service with the Company is terminated through any circumstances beyond his control such as continuous illness, permanent incapacity, death etc. has a claim on the employer's contribution. In three concerns the number of members form 20 per cent., 22 per cent. and 32 per cent. respectively of the total number of workers employed.

Gratuities.—Thirteen concerns (Madras, 4 ; Bombay, 3 ; Bengal, 4 ; and one each in Bihar and Mysore) have gratuity schemes. Three out of the four Madras concerns, which give gratuities, are public. In one of them, gratuity

is paid on death or on retirement after 10 years' approved service at the following rates.

Above	5	years of service		3	months' pay (subject to a maximum of Rs. 1,000)		
,,	10	,,	,,	6	,,	,,	,,
,,	15	,,	,,	9	,,	,,	,,
,,	20	,,	,,	12	,,	,,	,,

In two other Madras concerns, the period is also 10 years ; but for a service of less than 15 years, 3 months' wages are paid, while for a service of 15 years or over 6 months' wages given. In a private Madras concern, gratuity is given at the discretion of the management to workers, who have put in more than 20 years of service. For one of the Bombay concerns also no fixed rules for gratuity exist and the worker is paid according to the length and type of service. Another Bombay concern pays gratuity after 10 years' approved service at the rate of 1|2 month's pay for every year's service based on the average monthly substantive salary drawn during the last 3 years' srvice. A third concern in Bombay has a Retirement Fund, to which workers do not contribute. Every worker who is not eligible for membership of the Staff Provident Fund, i.e. generally a daily paid worker, is allowed to be a member of the Retirement Fund and gets gratuities according to the following scale only when he retires on account of old age or continuous ill-health after 15 years of approved service.

Over	15	years' and less than		20	years' service	9	months' pay
,,	20	,,	,,	25	,,	12	,,
,,	25	,,	,,	30	,,	15	,,
,,	30	,,	,,	30	,,	18	,,

In one of the Bengal workshops (a public concern) any worker who has rendered at least five years' good service in the workshop, gets one month's pay for every year of service, subject the maximum of 12 months' pay. In three other concerns the gratuities are given mostly at the discretion of the management. In a Bihar factory, a retiring gratuity equal to half a month's wages for every completed year of continuous service is paid, subject to a maximum of 12 months' wages. However, if a worker retires or is discharged before 15 years' continuous service, a gratuity ordinarily limited to half a month's wages for each qualifying year may be paid, subject to a maximum of 6 months' wages. One of the following conditions of service must be fulfilled to be eligible for gratuity ; (i) completion of 20 years' continuous service; (ii) retirement at the age of 55 or thereafter provided that not less than 15 years' continuous service has been completed; (iii) retirement after 15 years' continuous service with the approval of the authorities; or (iv) retirement or discharge with less than 15 years' service in consequence of a reduction in establishment or a certificate of unfitness on medical grounds due to employee's own fault. In the Mysore factory, workers, who are not entitled to become members of the Provident Fund are entitled to a gratuity on retirement, provided they have put in an approved service of not less than 15 years. The amount of gratuity is at the rate of half month's pay for each year of service subject to a maximum of 15 months' pay.

Pensions.—Only two concerns have the system of pensions. A Madras factory gives pensions to retired workers according to their service up to a maximum of Rs. 15 per month. In the other concern (in Bengal) pensions are stated to be entirely *ex-gratia* payments.

CHAPTER VIII.—ELECTRICAL ENGINEERING.

(Including Electrical Generating and Transforming Stations)

In 1943, the Engineering Industry claimed 1929 factories employing 513,613 workers. Out of these, 78 factories with 13,083 workers belonged to Electrical Engineering and 121 factories with 9,605 wokers were the Electrical Generating and Transforming Stations. Judged from these figures, these two branches of Engineering seem to be of minor importance. However, electricity, like sulphuric acid, is essential for the production of a number of goods and the extent of its production often serves as an index of the industrial prosperity of a country. Though the Electrical Engineering Industry has only 199 factories and 22,688 workers, it plays a vital role in India's industrial organisation.

The units surveyed for the purpose of investigation fall under two main categories :—

Electrical Workshops.—They comprise undertakings repairing, fitting or manufacturing electrical equipments, accessories and commercial products such as switch-boards, switch-gears, meters, electric cables, electric fans and electric lamps; and also undertakings which do electro-plating, electric welding or charging storage batteries or accumulators.

(b) *Power Stations.*—comprising undertakings generating electricity and those which receive, transform and supply it. (These undertakings have been called as *Power Stations* in this Report).

The following figures from the Factory Statistics show the war-time development in these undertakings :—

TABLE 84.

Electrical Engineering.

Province	Electrical Workshops				Power Stations			
	No. of factories		No. of workers		No. of factories		No. of workers.	
	1939	1943	1939	1943	1939	1943	1939	1943
Madras	4	7	166	545	3	6	264	410
Bombay ..	12	18	842	2,103	18	22	824	1,040
Bengal .. .	22	27	3,009	5,472	12	12	2,673	3,049
U.P. .. .	1	..	19		12	16	1,353	1,508
Punjab .. .	12	12	1,124	1,747	4	7	472	661
Bihar .. .	6	6	1,698	2,392	9	15	554	1,468
Other Provinces .	9	8	519	824	24	43	951	1,469
Total	66	78	7,377	13,083	82	121	7,091	9,605

The most important Provinces from the point of view of the industry are Madras, Bombay, Bengal, U. P., Punjab and Bihar. Units representing the various sub-sections in the Electrical Engineering were chosen for investigation. The number of units investigated in the six Provinces was 43 as follows :—

TABLE 85.

Units Sampled for Investigation.

Province	Electrical Workshops		Power Stations	
	Factories	Workers (1944)	Factories	Workers (1944)
Madras	3	150	1	228
Bombay	9	2,501	11	1,421
Bengal	9	3,316	6	4,926
U.P.	..	..	1	1,512
Punjab	..	..	2	948
Bihar	1	1,352	..	..
Total ..	22	7,319	21	9,035

The nature of work carried on in these concerns can be seen in the following table. In the case of factories undertaking more than one type of work, only the main type is shown.

TABLE 86.

Nature of Work.

Nature of factories.	No. of concerns in—					
	Madras.	Bombay.	Bengal.	U.P.	Punjab.	Bihar
I. *Electrical Workshops.*						
(i) Repairs workshops	2	2	..	..	..	..
(ii) Manufacturing fans ..	..	1	3	..	..	..
(iii) Manufacturing electric lamps	..	..	3	..	..	..
(iv) Dry cells and accumulators	..	1	..	..	..	..
(v) Cable Construction	..	1	..	..	..	1
(vi) Service and maintenance	1	2	1	..	..	..
(vii) Other workshops	..	1	2	..	..	..
II. *Power Stations.*						
(i) Electric Supply to Cities	1	3	6	1	1	..
(ii) Other Power Houses	..	..	..	..	..	..
(iii) Generating Stations (Tatas)	..	3	..	..	..	..
(iv) Receiving Stations	..	5	..	..	..	..
Total ..	4	20	15	1	2	1

Most of the Power Stations are of a more long-standing character than the Electrical Workshops. The following table shows that comparatively very few factories came into existence during the period 1920-1938, i.e., between the two wars. Many factories, specially the Power Stations were established before 1920, though none of the factories investigated was founded before 1896.

TABLE 87.

Date of Establishment.

Province.	Total no. of concerns	Electrical Workshops Established			Power Stations Established.		
		Before 1920	1920—1938	1938 & after	Before 1920	1920–1938	1938 & after
Madras	3	1	2	..	..	..	..
Bombay	15	1	2	3	5	1	3
Bengal	13	1	2	4	5	1	
U. P.	1	..	..	..	1	..	..
Punjab	2	..	..	..	2	..	..
Total ..	34	3	6	7	13	2	3

I—Employment.

The statistical data given in the table below show that there has been considerable increase in the number of workers employed in the Electrical Engineering concerns during the years of war, particularly in 1940-41. It is interesting to note that employment in the factories owned by Government and Local Funds has increased only slightly while that in other concerns has shown marked expansion.

TABLE 88.

Electrical Engineering in War-time.

Year.	Electrical Workshops owned by				Power Stations*	
	Govt. and Local Funds.		Others			
	Factories	Workers.	Factories.	Workers.	Factories.	Workers.
1939	34	3,592	32	3,785	82	7,091
1940	35	3,502	33	4,195	92	7,506
1941	36	3,751	38	6,649	113	8,638
1942	34	4,185	42	8,095	119	8,803
1943	34	4,329	44	8,754	121	9,605

*There are no Government or Local Fund Power Stations.

Figures collected in the course of *ad hoc* surveys also show an increase to the extent of 38 per cent. in the employment in Electrical Workshops since 1939. The employment in Power Stations however, reveals a decrease of about 9 per cent. This decrease, it was stated, was due to the shortage of skilled and semi-skilled operatives rather than to a decline in the requirements of power. It should not, therefore, be taken as a characteristic trend of the industry.

TABLE 89

Increase in Employment since 1939.

		Madras	Bombay	Bengal	U.P.	Punjab	Bihar	Total
I. *Electrical Workshops.*								
Factories ..	1939	2	7	6	..	..	1	16
	1944	3	9	9	..	..	1	22
Workers ..	1939	69	1,293	1,554	..	..	947	3,863
	1944	150	2,501	3,316	..	..	1,352	7,319
II. *Power Stations*								
Factories ..	1939	1	8	6	1	2	..	18
	1944	1	11	6	1	2	..	21
Workers ..	1939	228	1,006	5,104	1,481	745	..	8,564
	1944	228	1,421	4,926	1,512	948	..	9,033

Most of the concerns are small, employing about 100-150 workers. All the units surveyed except a Power Station in Bengal (which had 4,300 workers in 1939 and 4,000 workers in 1944) employed less than 1,600 workers.

The extent of employment is shown below.

TABLE 90.

Extent of Employment.

Province	year.	No. of concerns in which the no. of workers was				
		50 less than	50–150	151–500	501–1000	1000–1600
Madras	1939	2		1	..	..
	1944	2	1	1	..	..
Bombay	1939	4	7	3	1	..
	1944	4	11	3	2	..
Bengal	1939	1	4	4	2	..
	1944	2	4	5	2	..
U.P.	1939	..	..	..	..	1
	1944	..	..	..	..	1
Punjab	1939	..	..	..	1	..
	1944	..	..	..	1	..
Bihar	1939	..	..		1	
	1944	..	..	..	..	1

Female Labour.—Five of the concerns investigated employ female labour but the number of women employed is insignificant, except in one Electrical Workshop in Bihar. The extent of female labour in the electrical engineering concerns is shown below :—

TABLE 91.

Female Labour.

Province	Concern	Nature of factory	No. of Women employed in	
			August 1939	January 1944
Bombay	I	Power Station	1	1
	II	,, ,, ...	2	2
	III	Electrical Workshop	9	..
Bengal	I	Power Station	6	5
	II	,, ,, ...	2	2
Bihar	I	Electrical Workshop	108	137
Total ..	6		128	147

Most of the women are sweepers. The reason for the employment of women in the Bengal and Bihar factories may be found in the fact that these factories are located near the mining areas, where womenfolk take to industrial occupations. Work in Electrical Engineering, as compared to that in other branches of the engineering industry, does not involve much physical strain but requires constant and steady attention, skill and responsibility.

Piece-rate Workers.—Workers were employed on piece rates only in two Bengal factories and one Bihar factory. The number of workers in these factories is given below.

TABLE 92.

Piece-rate Workers.

Province	Concern.	Total No. of workers		No. of Piece-rate workers		Percentage of Piece-rate to total workers.	
		1939	1944	1939	1944	1939	1944
Bengal	I	646	1,118	240	455	37%	41%
	II	35	73	..	4	..	5%
Bihar	I	947	1,352	108	137	11%	10%

All the three factories are Electrical Workshops. In the Bengal factories, workers employed in the moulding and smithy jobs are generally on piece rates; in Bihar, piece-rate work is prevalent among setters (Dies), Block strippers and some coolies and 'Rejas'.

Contract Labour.—Only three concerns (one in Madras and two in Calcutta), all Electrical Workshops, employ some of their workers through

contractors. The figures for the Madras factory are not available. The contract labour employed in the other two factories is as follows :—

TABLE 93.

Contract Labour in Bengal.

Factory	Year	Total No. of workers.	Workers employed and paid through contractors.	Percentage of Contract labour to total.
I	1939	646	164	25%
	1944	1,118	251	22%
II	1943*	564	222	39%
	1944	610	446	73%

* This factory was established only in 1942

The Madras factory engages contract labour for unloading, stacking and handling coal. The Bengal factories utilise these workers as drillers or in galvanizing, smithy or moulding shops. Contract labour was employed to meet the shortage of the directly available skilled and semi-skilled workers. It may be mentioned here that in the Power Stations, all labour is employed directly and on time rates.

Length of Service.—An analysis of the length of service of the operatives shows that there is a fair degree of stability of employment in this industry. This stability, however, is more marked among workers in the Power Stations than among those in the Electrical Workshops. The high percentage of workers, who have less than five years' service to their credit, is due to the establishment of a number of new concerns and to the expansion of a number of older factories during the War. The following table gives data in regard to the length of service of workers employed in the sampled units.

TABLE 94.

Length of Service.

	No. of concerns	Workers with the following length of service			
		Less than 1 year.	1 to 5 years	5 to 10 years.	Over 10 years
I. *Electrical Workshops.*					
Madras	3	10 *7%*	25 *16%*	102 *66%*	17 *11%*
Bombay	8	1131 *45%*	606 *24%*	290 *12%*	489 *19%*
Bengal	9	1414 *45%*	983 *32%*	481 *15%*	238 *8%*
Bihar	1	394 *24%*	780 *48%*	260 *16%*	183 *12%*
Total	21	2929 *40%*	2394 *32%*	1133 *15%*	937 *13%*
II. *Power Stations.*					
Madras	1	37 *13%*	98 *34%*	55 *19%*	96 *34%*
Bombay	11	265 *19%*	383 *26%*	259 *19%*	513 *36%*
Bengal	4	278 *33%*	235 *28%*	136 *16%*	189 *23%*
Punjab	1	29 *13%*	114 *51%*	18 *8%*	63 *28%*
U.P.	1	641 *43%*		476 *32%*	383 *25%*
Total (except U.P.)	17	609 *22%*	830 *30%*	468 *1 %*	861 *31%*

NOTE.—Figures in italics give the percentage to total workers.

Permanent and Temporary Classification.—Generally there are no special privileges to form the basis of distinction between permanent and temporary operatives, the usual privileges as regards bonus, medical aid or leave being open to all workers without any distinction. The classification, therefore, is often vague and some of the concerns treat all their workers either as temporary or as permanent. The following table refers to such classification :—

TABLE 95.

Factories with or without Classification.

Province	Total No. of concerns.	No classification	All temporary.	All Permanent.	Classification.
Madras	4	..	1	2	1
Bombay	20	4	..	5	11
Bengal	15	6	..	4	5
Punjab	2	2	..	..	..
U.P.	1	..	..	..	1
Bihar	1	1	..	..	..

In the Bihar factory, as in a number of other factories, all appointments in normal times are on a permanent basis unless a few workers are taken on specially for temporary work. However, war-time requirements have caused considerable increase in personnel and many of these are classed as " temporary war-time employees " because it is unlikely that they will be retained in peace time. In a number of factories a period of service varying from 3 months to 3 years is a condition precedent to declaring a worker permanent. In factories where a classification is made, the proportion of temporary workers is generally small, except where the factory has had to take on men for the duration of war. The following table shows the proportion of temporary workers :—

TABLE 96.

Percentage of Temporary Workers.

Concern	Madras	Bombay		Bengal		U.P.
	E	E	P	E	P	P
I	9 %	26 %	19 %	2 %	4 %	10 %
II		33 %	51 %		5 %	
III		85 %	4 %		10 %	
IV		65 %	50 %		40 %	
V		5 %				
VI		59 %				
VII		4 %				

NOTE :—E. Electrical Workshops P. Power Stations.

Permanent workers are entitled to the benefits of provident fund, co-operative credit society, leave (about 15 days in a year) according to rules and 15 to 30 days' notice for their termination of service. There is, however, no uniformity about these privileges and some of them are available even to temporary workers. Other privileges which are common to all the workers are dearness allowance, bonus, cheap grains, holidays, housing accommodation, etc.

Apprentice System.—The technical nature of work in this industry involves the necessity of training freshers and hence apprentice system, in diverse forms,

exists in a number of factories. Some of the details are given below :—

TABLE 97.

Apprentice System.

Province.	Concern.	System Meant for—	Period.	Remuneration.
Madras ..	I	Electrical Deptts.	3 months	Nil.
	II	,,	4 years.	6 months nil ; then 8 as. to Rs. 2 per day.
Bombay ..	I	Skilled workers	5 ,,	Rs. 12 to Rs. 30 per month.
	II	(*a*) Wiremen & Linesmen	2½ ,,	6 months nil ; then Rs. 12 to Rs. 15.
		(*b*) Technical students	,, ,,	6 months nil ; then Rs. 15 to Rs. 20 p.m.
	III* to IX	(*a*) Trade Leaners ..	3 years	Grade.
		(*b*) Govt. Apprentice Scheme ..	4 ,,	
		(*c*) School Apprentices	3 ,,	Nil.
		(*d*) College Apprentices	3 to 6 months	,,
Bengal ..	I	For ordinary posts ..	4 to 6 months.	8 as. to 10 as. per day.
	II	(*a*) Junior or Mistry grade	2 years	5 to 21 pies per hour.
		(*b*) Senior grade 'A'	2 years.	Rs. 15 to Rs. 20 p.m.
		(*c*) ,, ,, 'B'	4 ,,	Rs. 5 to Rs. 20 p.m.
	III	(*a*) Skilled Technicians	3 months	Rs. 50 to Rs. 75 p. m.
		(*b*) Skilled labour ..	3 months	Rs. 15 to Rs. 20 p.m..
		(*c*) Semi-skilled labour	15-20 days	Rs. 15 p. m.
	IV	(*a*) Engineer Apprentice	1 year	6 months nil ; then Rs. 30 to Rs. 60 p. m.
		(*b*) Supervisor ,, ..	3 years.	6 months nil ; then Rs. 15 to Rs. 30 p.m.
		(*c*) Fitter Apprentice ..	3 years	6 months nil ; then Rs. 5 to Rs. 20 p.m.
	V	Ordinary posts ..	3 years	4 as. to 8 as. p. d.
	VI	Supervisory posts ..	3 years	Rs. 13 to Rs. 20 p.m.
	VII	Ordinary posts ..	6 months	12 as. p.d. with monthly increment of 4 to 8 as. per day.
	VIII	(*a*) Workshop Apprentices	4 years	3 months no pay ; then grade of Rs. 16-3-Rs. 25. p.m.
		(*b*) Engineering ,, ..	5 ,,	Grade of Rs. 20—5—Rs. 40 p.m.
		(*c*) Student ,, ..	3 to 12 months.	Nil.
	IX	Switch Board operatives	..	Rs. 10 p.m.
	X	Government student apprentices ..	3 years	Nil.
	XI	Ordinary workshop training ..	5 years	Grade of Rs. 5—2½—15.
Punjab ..	I	(*a*) Trade Apprentices ..	5 years	Grade of Rs. 0—4—6 Rs. 0—13—0 p.d.
	I	(*b*) Apprentice Mechanics	5 years	Grade of Rs. 10—5—Rs. 30 p.m.
U.P. ..	II	(*a*) Trade Apprentice ..	5 years	Rs. 10 to Rs. 16 p.m.
		(*b*) Student ,, ..	3 years	Rs. 20 p.m.
		(*c*) Trade Probationers..	5 years	Rs. 10 to Rs. 18 p.m.
Bihar ..	I	Fitters, turners and electrical mistries ..	3 years	Grade of Rs. 0—12—0 Rs. 0—4—3 Rs. 1—8—0

*These concerns belong to one undertaking in Bombay.

In a few concerns the apprentices, who are unpaid, have to pay fees for training varying from Rs. 60 for a three months' course in a Madras factory to Rs. 300 for a 3 years' course for school apprentices in a Bombay concern. Most of the schemes lay down conditions about age, minimum qualifications and conditions of service. The age limits are generally 16 and 25 years.

The educational qualifications, such as the passing of Matriculation Examination, the Apprenticeship Examination of a Provincial Board, or a technical course (Degree or Diploma) in an Engineering College, etc., are laid down generally for the supervisory or higher technical posts. Training in some factories is open to apprentices who desire to qualify for diplomas like the Second Class Wiremen's Certificates and First Class Competency Certificate granted by the P. W. D. Licensing Board for wiremen and linesmen. Some factories admit, for practical training, students sent or recommended by Universities and Technical Institutes like the Bangalore Institute of Science or the Benares University. These student-apprentices are generally not paid any wages. Some factories make it compulsory for their apprentices (who may get a small stipend) to attend technical classes at a technical institute (such as the V. J. T. Institute, Bombay). After the expiry of the probationary period which may vary from three to six months, an apprentice is generally paid the minimum remuneration, which by regular or *ad hoc* increments, is raised during the rest of the apprenticeship period. The factory, however, does not give any guarantee of employment after the period of apprenticeship is over. A Madras factory, for example, trained during 1938-43, 51 apprentices, out of whom 36 qualified and left, 12 qualified and were absorbed in the concern, while 3 were dismissed. If at the end of the apprenticeship period there are any vacancies in the regular cadre, apprentices are appointed to them and then the period of apprenticeship is counted towards total service. The conditions of service for apprentices are generally the same as those for temporary workers.

Labour Turnover.—In most of the cases, labour turnover has increased in war time. The establishment of new factories in Electrical Engineering and Ordnance in this period created a greatly increased demand for skilled and semi-skilled workers, necessitating a redistribution of the available supply and causing thereby a lot of turnover. Retirements are few and turnover, normally, is caused mostly by dismissals and discharges. Of course, employers are often apt to report dismissals under the category of voluntary quits. Other reasons for labour turnover are old age, ill health, death, unauthorised absence and resignation on personnel grounds. The following table gives data in regard to turnover in the sampled units :—

TABLE 98.

Labour Turnover.

	Year	No. of factories.	Average daily No. of workers	No. of workers who left				% of annual turnover
				Retd.	Dismissed	Voluntary	Total	
I. *Electrical Workshops.*								
Madras ..	1944	3	150	..	..	..	..	..
Bombay ..	1939	3	867	10	27	18	55	6
	1943	6	2,300	10	65	491	566	25
Bengal ..	1939	6	1,554	@	@	474	474	31
	1943	6	2,653	@	@	1,145	1,145	43
Bihar ..	1938	1	993	..	13	49	62	6
	1943	1	1,542	..	169	134	303	20
II. *Power Stations.*								
Madras ..	1944	1	228	..	..	1	..	..
Bombay ..	1939	7	954	5	123	52	180	19
	1943	11	1,421	8	158	82	248	17
Bengal ..	1939	4	512	1	4	19	24	5
	1943	4	693	3	24	66	93	13
Punjab ..	1939	1	157	1	..	185	186	118
	1943	1	162	4	1	212	217	134
U.P.	1939	1	1,534	7	26	28	*	*
	1943	1	1,687	19	362	99	480	28

@These figures were not available.

* Figures about temporary workers in 1939 were not available. The figures given are for permanent workers only.

Absenteeism.—The absenteeism figures furnished by the factories were found in many cases to be defective. Some of the factories, for example, included absenteeism for all reasons such as sickness, leave with or without pay, etc., while some others included only unauthorised absence. The following table gives data as regards absenteeism and they should be taken for what they are worth :—

TABLE 99.

Absenteeism (Percentages).

Concern	Madras.		Bombay.				Bihar.		
			1939		1943		1939	1943	1944
	E.	P.	E.	P.	E.	P.	E.	E.	E.
I ..	25 %	2·1 %	11·8 %	1·9 %	11·4 %	3·2 %	12·3 %	10·7 %	11 %
II ..	2·5 %	..	1·8 %	3·5 %	3·5 %	3·1%	..	..	..
III ..	7·2 %	..	0·5 %	12 %	0·5 %	30 %	..	..	..
IV ..	..	..	..	0·02 %	3·5 %	0·02 %	..	..	..
V ..	..	..	..	..	2·5 %	0·8 %	..	..	..
VI ..	..	..	..	..	0·1 %	2·1 %	..	..	..
VII ..	..	..	..	..	..	0·02 %	..	..	..

E. Electrical Workshops.
P. Power Stations.

Absenteeism based on the figures available from 5 out of 9 Electrical Workshops surveyed in Bengal is shown below :

TABLE 100.

Absenteeism in Electrical Workshops in Bengal.

	1939	1943
Estimated maximum mondays	2,69,923	4,27,342
Mondays lost	29,834	39,737
Percentage	11·05	9·29 %

Unauthorised absence in the U. P. factory in 1940 was 0.7 day per man per year ; in the first half of 1944, it was 1.7 days per man in the half year. The main cause of absenteeism in this industry is sickness. The employment in this industry shows little or no seasonal fluctuations, because most of the workers constitute a stabilised and trained class and are recruited from urban areas.

Standing Orders.—The relations between employers and employees in 18 of the factories surveyed are governed by standing orders which are variously known as Service Rules, General Conditions of Service, Terms of Service or Rules and Regulations of Employment. Two other factories have an Agreement Form to be signed by the workers. This form contains some conditions of employment. In a majority of factories, however, the industrial relations are regulated by the Manager in his discretion.

Recruitment.—All factories, except two in Bengal, employ labour directly. For skilled and semi-skilled jobs, candidates are generally recruited at the factory gate, where they present themselves whenever informed of any vacancy. Generally this is made known to them through existing workers. In a few cases, notices in regard to vacancies are put up on boards. From amongst the applicants the required number are selected by the Manager, the Engineer, the Foreman or the Labour Officer. Skilled workers are also recruited at the gate, if available. The other method is to invite applications by means of advertisement in papers or by posting notices. The applicants are then interviewed, and, if found suitable, are placed on trial. Trade test seems to be compulsory for skilled jobs. Some of the concerns, as we have seen above, train apprentices for skilled jobs. Only six concerns have so far tried to utilise the Employment Exchanges, but the experience of some of them is not very happy. The complaints are, on the one hand, that the men sent by the Exchanges are not up to the mark and, on the other, that the applicants seeking jobs through them have seldom got any.

Labour Officer.—Very few factories appoint a labour officer to look after the grievances of workers. Only one, out of the four Madras factories investigated, has a labour officer. Investigation in Bombay showed the employment of only three labour officers in all the units surveyed. One of them was, however, employed jointly by one of the concerns investigated and a textile mill of which the former constituted a part, while another was the labour officer of a large undertaking, of which the seven factories investigated formed a minor proportion. Besides in these seven factories, workers' grievances are looked after both by the Works Engineer and by the Labour Officer. The only other concerns, which have employed labour officers, are two, one each in the Punjab and the U. P. The labour officer in the Punjab factory is known as the Personnel Officer.

II.—Wages and Earnings.

The details of wages and earnings vary from Province to Province and so are, therefore, given separately.

A. Madras.

Among the factories surveyed in Madras, two have not changed the rates of wages paid to their employees since 1939. In the third factory wage rates were fixed in 1940 and these rates continued in force till the 30th November 1944, when they were raised slightly. In the fourth factory, it was stated that in the course of the war wages had increased by 50 to 100 per cent. and that this increase in the basic rates was to be regarded as pemanent.

Graded promotions are given only in two factories. In one of them, two to four grades are fixed for several occupations. Workers are given increments at the rate of one anna in two years, while promotions from grade to grade depent on strict merit, utility and efficiency. For example, there are four grades of fitters, with daily wages as : (i) 12 as. to 15 as. ; (ii) Re. 1 to Rs. 1-3-0; (iii) Rs. 1-4-0 to Rs. 1-6-0 and (iv) Rs. 1-8-0 to Rs. 2. The other concern has an elaborate system of grading. Workers are placed in different schedules, which are further divided into divisions. For each division in

each schedule there is an increment in wages or salary. The following table gives detailed information in this regard :--

TABLE 101.

Graded Wages for Daily-rated Employees.

Year of Service	Schedule I.		Schedule II Divisions				
	Boys	Males	I	II	III	IV	V
1st	0 7 0	0 10 0	0 12 0	1 1 0	1 7 0	1 11 0	2 4 9
2nd	0 7 3	0 10 3	0 12 6	1 2 0	1 8 0	1 12 0	2 6 0
3rd	0 7 6	0 10 6	0 12 9	1 2 6	1 8 6	1 13 0	2 6 9
4th	0 7 9	0 10 9	0 13 0	1 3 0	1 9 0	1 13 9	2 7 6
5th	0 8 0	0 11 0	0 13 3	1 3 6	1 9 6	1 14 6	2 8 3
6th	0 8 3	0 11 3	0 13 6	1 4 0	1 10 0	1 15 3	2 9 0
7th	0 8 6	0 11 6	0 13 9	1 4 6	..	2 0 0	2 9 9
8th	0 8 9	0 11 9	0 14 0	1 5 0	..	2 0 9	2 10 6
9th	0 9 0	0 12 0	0 14 6	1 5 6	..	2 1 6	2 11 3
10th	..	..	0 15 0	1 6 0	..	2 2 3	2 12 0
11th	..	..	0 15 6	..	..	2 3 0	..
12th	..	..	1 0 0	..	..	..	..

TABLE 102.

Graded Wages for Monthly-rated Employees.

Year of service	Schedule III Divisions						
	I	II	III	IV	V	VI	VII
1st	17 12 0	26 12 0	41 12 0	55 12 0	65 0 0	75 0 0	26 12
2nd	18 12 0	27 12 0	43 12 0	58 12 0	67 0 0	77 0 0	27 12
3rd	19 12 0	28 12 0	46 12 0	60 12 0	69 0 0	79 0 0	28 12
4th	20 12 0	29 12 0	49 12 0	62 12 0	71 0 0	81 0 0	29 12
5th	21 12 0	30 12 0	52 12 0	..	73 0 0	83 0 0	30 12
6th	22 12 0	31 12 0	..	..	..	..	31 12
7th	23 12 0	32 12 0	..	..	..	..	32 12
8th	24 12 0	33 12 0	..	..	..	..	33 12
9th	25 12 0	35 12 0	..	..	..	..	35 12
10th	..	37 12 0	..	..	..	..	37 12
11th	..	39 12 0	..	..	..	..	39 12
12th	..	..	..	..	..	..	41 12
13th	..	..	..	..	..	..	43 12
14th	..	..	..	..	..	..	46 12
15th	..	..	..	..	..	..	49 12
16th	..	..	..	..	..	..	52 12
17th	..	..	..	..	..	..	55 12
18th	..	..	..	..	..	..	58 12
19th	..	..	..	..	..	..	60 12
20th	..	..	..	..	..	..	62 12

Workers like blacksmiths, carpenters, drillers, fitters, hammermen, rivetters, turners, welders, winders, wiremen, firemen, serangs, cranemen, etc., may be put in any one of the divisions of Schedule II. *Mistries*, serangs, turbine-drivers, etc., are found in divisions I to V of this Schedule. Exceptionally skilled workmen may be given special terms. Among monthly paid employees in Schedule III, the main categories found in Divisions I to VI are chargemen, clerks, time keepers, storemen, foremen, electricians, etc. Station Attendants and Switch Board Attendants are placed in Division VII. All appointments above Rs. 83 per month are regarded as special appointments.

As we have seen above, some of the superior staff is paid monthly. The following figures give the wages and earnings for such staff :—

TABLE 103.

Wages and Earnings (in rupees) of Monthly-rated Staff (January 1944).

Name of occupation.	Monthly Basic Wages			Monthly Earnings.		
	Max.	Min.	Avr.	Max.	Min.	Avr.
Engineer—						
Senior	425	140	279	468	154	305
Junior	125	47	86	138	59	98
Foreman	85	36	66	96	50	78
Switch-board Attendants	36	26	32	49	42	46

The maximum, minimum and average rates of wages and earning for daily-rated categories of workers based on figures of the four concerns investigated are given below :—

TABLE 104.

Wages and Earnings (in rupees) of Daily-rated Employees (January 1944).

Name of occupation	Daily Basic Wages			Monthly Earnings		Average daily Earnings.
	Max.	Min.	Aver.	Max.	Min.	
Blacksmith	2 3 0	0 8 0	1 5 11	51 9 0	29 6 0	1 13 3
Carpenter	2 4 0	0 7 0	1 6 1	55 3 0	31 8 0	1 12 9
Driver (crane, turbine)	1 6 0	1 1 0	1 5 4	67 13 0	51 9 0	1 13 2
Fitter	2 8 0	0 7 0	1 10 6	84 2 0	33 3 0	2 2 9
Driller	2 3 0	0 12 0	1 0 6	35 9 0	33 6 0	1 7 4
Fireman	2 3 0	0 10 0	1 7 7	78 2 0	43 5 0	1 14 9
Greaser	1 6 0	0 12 0	0 12 9	40 12 0	40 12 0	1 5 0
Hammerman	1 4 0	0 7 0	0 15 6	45 8 0	24 11 0	1 10 4
Maistry & Serang	2 12 0	1 1 0	1 7 1	80 3 0	48 7 0	1 14 8
Moulder	2 0 0	0 8 0	1 13 9	49 0 0	57 0 0	2 8 4
Painter	1 0 0	0 11 0	1 3 5	72 12 0	30 6 0	1 9 11
Turner & Machineman	2 8 0	0 7 0	1 6 2	62 6 0	26 2 0	1 13 0
Wireman	2 8 0	0 12 0	1 10 0	107 0 0	40 7 0	2 10 8
Cleaner	1 7 0	0 8 0	0 13 8	56 8 0	24 13 0	1 1 7
Coolie	2 0 0	0 5 0	0 10 5	43 13 0	17 12 0	1 1 8

Note.—The figures refer to basic wages and monthly earnings for the month of January 1944 in the sampled concerns. As the number of days worked by workers in the different concerns differs, the average daily earnings are given in the last column for purposes of comparison. As there are no deductions of a non-beneficiary character in the concerns, gross earnings and net earnings are the same.

B. Bombay.

The twenty concerns investigated in Bombay can broadly be divided into three classes : (i) six concerns, almost all generating and transforming stations, belong to the Tata Hydro-Electric Power Supply Company, (ii) seven concerns form a part of the Engineering side of the Bombay Electric Supply and Tramways Company, and (iii) the remaining seven concerns of a miscellaneous character. The Power Stations of the Tatas are both in the mofussil (generating stations) and in the urban areas (receiving stations) and naturally wages differ from unit to unit. In the mofussil factories, skilled labour such as overhaul men, fitters, turners, coppersmiths, blacksmiths, carpenters, etc., are paid from Rs. 50 to Rs. 119 p. m. and the unskilled workers (coolies) are paid from Rs. 22 to Rs. 40 p. m. Temporary hands, such as fitters, carpenters, blacksmiths, are paid from Rs. 1-8-0 to Rs. 2-8-0 per day and temporary coolies are paid from 8 as. to Re. 1 per day, as and when

required for special job. In the urban areas, permanent workers get monthly fixed salaries as follows :—(i) Operators and Assistants ; Rs. 100 to Rs. 245 ; (ii) Fitters : Rs. 160 ; (iii) Helpers : Rs. 105 to Rs. 110 ; (iv) Carpenters : Rs. 85 and (v) Coolies : Rs. 30 to Rs. 41. Temporary workers are daily-rated as follows : (i) Fitters : Rs. 1-12-0 to Rs. 5 ; (ii) Carpenters : Rs. 2 ; and (iii) Coolies : Re. 1 to Rs. 1-12-0.

The BEST Company has two sets of wage rates, one for the workers who joined the Company's service prior to 1927, and the other for those who joined after 1927. The following table gives the wage rates of a few important categories of workers out of the total list of 122 occupations.

TABLE 105.

Daily Wage-rates in the BEST Company.

Designation	For Workers who joined the Company's Service.				Superior Grade.
	Prior to 1927		Efficiency Bar.	After 1927	
	Min.	Max.		Min.	Max.	
	Rs. as. P.	Rs. as. P.	Rs. as. P.	Rs. as. P.	Rs. as. P.	Rs. as. P.
Blacksmiths	1 5 9	2 7 0	2 1 9	1 3 10	2 10 6	2 13 4 to 3 3 0
Cabinet makers	1 5 6	2 10 4	..	2 10 6	2 13 4	3 0 2 to 3 5 10
Carpenters	1 0 0	2 4 6	1 6 0 & 1 13 7	1 3 10	2 7 8	..
Cleaners (Machine, office, etc.)	0 11 4	0 13 10	..	1 1 0	1 1 0	..
Coolies	0 11 4	0 11 4	..	1 1 0	1 1 0	..
Drillmen	1 6 2	1 13 7	1 10 2	1 3 10	1 15 2	..
Engravers	2 5 6	2 10 4	..	2 7 8	2 13 4	3 0 2 to 3 5 10
Fitters	1 4 9	2 5 1	..	1 3 10	2 7 8	2 10 6 to 3 8 8
Furnaceman	1 4 9	1 11 1	..	1 9 6	1 15 2	..
Greasers	0 12 10	0 13 10	..	1 1 0	1 6 8	..
Hammermen	0 12 10	0 13 10	..	1 1 0	1 3 10	..
Learners (Trade)	0 11 4	0 13 10	..	0 11 4	1 1 0	..
Masons	1 2 3	1 8 8	..	1 9 6	2 2 0	2 4 10 to 2 10 6
Moulders	1 2 6	2 2 0	1 12 0	1 3 10	2 4 10	2 7 8 to 2 13 4
Muccadams	0 14 10	1 3 3	..	1 1 0	1 3 10	..
Oilers	0 12 10	0 13 10	..	1 1 0	1 3 10	..
Painters	1 0 3	1 13 7	1 4 3 & 1 9 9	1 3 10	2 2 0	2 4 10 to 2 10 6
Patternmakers	2 0 2	2 10 4	..	2 10 6	2 13 4	to 2 13 4
Polishers ..	1 4 9	1 13 7	1 9 9	1 3 10	1 12 4	..
Sawyer (Machine) ..	1 4 9	2 4 6	1 8 8 & 1 15 8	1 3 10	2 7 8	..
Shunters	0 14 10	1 3 3	..	1 1 0	1 6 8	..
Tailors	1 4 0	1 8 8	..	1 9 6	2 2 0	..
Tinmen	1 6 2	2 4 6	1 13 2	1 3 10	2 2 0	..
Turners	1 0 3	2 2 0	1 4 3 & 1 11 9	1 3 10	2 4 10	2 7 8 to 2 13 4
Winders	1 0 3	3 1 9	1 4 3	1 3 10	3 5 10	..
Wiremen	1 0 3	1 15 1	..	1 3 10	2 2 10	2 4 10 to 2 10 6

NOTE : (a) In case of those who joined before 1927, initial increases at the rate of one anna per day are granted to workmen on completing every two years' service.

After the initial increase, workmen are granted further increases of one anna per day on completion of each year's service provided their work has been entirely satisfactory and they have not attained the efficiency bar rate, or the maximum rate of pay for their designation. On reaching the efficiency bar, no further annual increases are granted until the workmen have passed an efficiency test.

In the case of those who joined after 1927, initial increases at the rate of 2 as 10 ps. per day are granted to all employees on completing 2 years' approved service provided the maximum rates of wages for their designations are not exceeded. Further increases are granted at the rate of 2 as. 10 ps. every two years in case of men drawing less than Rs. 2-7-8 per day and at the rate of 2 as. 10 ps. every year in the case of men drawing Rs. 2-7-8 and over per day provided always that their work has been entirely satisfactory, and that the maximum rates of wages for their designations are not exceeded.

(b) In the above table, assistants and other grades in an occupation have been grouped together under the main head of occupation as fitters, carpenters, etc.

(c) Where there is no increment, maximum and minimum rates are the same.

The following table has been compiled from the figures given by three Miscellaneous Electrical Workshops, three Power Stations (other than the Tata's or the BEST), and four BEST factories. All the factories are in urban areas :—

TABLE 106.

Wages and Earnings (in rupees).

Name of occupation	Nature of industry.	Monthly Basic Wages.			Monthly Gross Earnings.		
		Max.	Min.	Avr.	Max.	Min.	Avr.
Fitter	E	111	50	70	119	73	83
	P	120	23	53	152	41	79
	B	90	25	51	132	25	107
Carpenter ..	E	90	44	77	102	67	93
	P	60	20	36	76	57	63
	B	71	26	41	163	37	86
Blacksmith	E	83	48	71	106	60	75
	P	67	23	43	83	54	67
	B	56	28	33	98	56	79
Wiremen	P	60	13	35	81	41	61
	B	65	17	37	119	40	70
Coolie	E	42	20	31	49	29	43
	P	32	13	18	55	34	46
	B	27	13	22	77	38	61

NOTE—
E for Miscellaneous Electrical Workshops.
P. for Miscellaneous Power Stations.
B for BEST factories.

C. Bengal.

(a) *Electrical Workshops.*—The basic wage rates for different occupations in the industry show much improvement on pre-war figures, the degree of rise varying from unit to unit. Generally speaking, wage rates for the skilled trades have shown a greater rise than those for the unskilled ones. Rise to the extent of 12 as. has taken place in the daily wage rates of some of the occupations, but the average rise was to the extent of 6 to 7 as. Out of the nine units investigated, only one has been found to have standardised the wage rates. All workers in this concern are recruited on a basic pay of Re. 0-6-3 per day, which rises by Re. 0-1-6 every second year of service up to 6 years, after which the same increment is granted annually.

The following table give the wages and earnings of the workers employed in the concerns investigated. The first table shows the basic wages and gross earnings paid in three units manufacturing lamps. The second table gives similar figures about six concerns manufacturing electric fans and general electrical goods :—

TABLE 107.

Daily Wages and Earnings in Electric Lamp Manufacturing Companies, Bengal.

Occupation.	Basic Wages			Gross Earnings.		
	Max.	Min.	Aver.	Max.	Min.	Aver.
Ageing	2·31	0·56	1·14	4·72	0·94	2·09
Vacuming	2·31	1·00	1·20	4·72	1·38	2·15
Sealing	1·63	0·56	1·04	3·27	0·94	1·87
Gettering	1·41	0·58	1·14	3·27	1·41	2·19
Filament mounting	1·41	0·58	1·14	3·27	1·41	2·19
Foot making	1·41	0·50	0·98	3·16	0·88	1·73
Mounting	1·41	0·50	1·11	3·35	0·88	2·05
Inserting	1·41	0·50	1·05	3·25	0·88	1·99
Capping	1·41	0·50	0·82	2·26	0·88	1·57
Stamping	1·41	0·50	0·86	1·82	0·88	1·40
Soldering	1·41	0·69	0·96	2·13	1·45	1·80
Designing & Spiralling	4·23	0·50	2·03	9·62	9·62	4·09
Neck making	1·41	0·63	0·96	2·35	1·00	1·66
Gas filling	1·41	0·50	1·03	1·82	0·88	1·43
Photometre attendants	1·41	0·88	1·10	1·82	1·25	1·50
Chemical	1·41	0·81	1·02	1·82	1·19	1·42
Sorting	1·41	0·58	1·01	2·85	0·96	1·78
Washing	1·41	0·58	0·87	1·82	0·99	1·27
Packing	1·73	0·58	1·06	4·41	1·42	2·01

TABLE 108.

Daily Wages and Earnings in Factories Manufacturing Electric Fans and General Electric Goods, Bengal.

Occupation	No. of men employed.	Basic Wages			Gross Earnings		
		Max.	Min.	Avr.	Max.	Min.	Avr.
Machine Fitter	58	2·48	1·21	1·51	3·30	1·81	2·12
Latheman	8	2·42	1·05	1·60	2·67	1·36	1·88
Viceman	8	1·52	0·82	1·17	1·74	1·01	1·38
Turner	54	1·96	1·03	1·45	2·61	1·53	2·01
Diceman	46	2·97	2·23	1·69	3·82	1·88	2·41
Electric Fitter	14	1·44	0·33	0·95	1·88	0·62	1·25
Electric Armature Winder ..	4	1·93	1·54	1·74	2·28	1·63	1·94
Painter	44	2·16	0·89	1·34	3·27	1·48	2·16
Blacksmith	30	1·45	0·90	1·19	1·99	1·49	1·76
Carpenter	33	1·55	1·20	1·35	2·23	1·82	2·00
Nickel plater	20	1·31	0·88	1·00	2·02	1·53	1·67
Checker	13	1·13	0·81	0·99	1·78	1·47	1·64
Gauge Checker	5	2·06	0·81	1·63	2·86	1·47	2·15
Shaping man	11	2·06	1·00	1·51	2·86	1·66	2·24
Tinsmith	6	1·56	0·75	1·02	2·27	1·41	1·68
Driller	7	1·41	0·94	1·15	2·03	1·40	1·69
Grinder	10	1·88	0·94	1·26	2·67	1·59	1·96
Finisher	7	1·25	0·75	0·99	0·91	1·41	1·64
Armature winders	216	2·10	1·15	1·53	2·84	1·78	2·29
Moulder	63	2·60	0·99	1·32	3·83	1·38	1·92
Fanshop winder	80	2·96	0·95	1·65	3·78	1·33	2·27
Pattern maker	13	3·79	1·08	2·01	4·37	2·01	3·14
Tool setter	11	2·96	1·07	1·73	3·44	1·56	2·28
Electrician	3	3·60	2·03	2·82	4·45	2·54	3·49
Coolies	4	1·41	1·03	1·22	1·82	1·45	1·64

(b) *Power Stations.*—Of the 6 units surveyed, three have graded system of pay for their workers. The wage rates for different occupations in the units not having graded scales of pay show some improvement on those obtaining in 1939 but this is more apparent than real as the increased wage-rates prevailing at present in two of these three units represent the consolidated amount of basic wages and dearness allowance. The average daily basic wages and gross earnings, based on figures of 4 units are given below :—

TABLE 109.

Daily Wages and Earnings in Power Stations—Bengal.

Name of Occupation	No. of workers	Basic Wages			Gross Earnings		
		Max.	Min.	Avr.	Max.	Min.	Avr.
Carpenter	1	1·23	1·23	1·23	1·23	1·23	1·23
Pumpman	33	0·95	0·88	0·92	1·23	1·06	1·17
Engine-driver	8	1·51	1·24	1·36	1·84	1·55	1·65
Machine fitter	23	4·61	1·46	3·02	1·96	1·51	1·76
Electric fitter	6	2·81	1·47	1·99	2·97	1·45	1·99
Fireman	11	1·50	1·39	1·44	..	..	..
Lineman	11	1·74	1·11	1·40	2·33	1·60	1·94
Switch Board Attendant ..	32	1·22	0·83	0·99	1·86	1·32	1·56
Boiler tindel	14	2·06	1·37	1·74	1·81	1·48	1·68
Ashman	66	1·11	1·00	1·04	1·81	1·16	1·37
Machine & Power House Attendant	9	1·13	0·65	0·80	1·69	0·97	0·91
Water Attendant	16	0·97	0·65	0·69	1·32	0·97	1·04
Cleaner	3	0·65	0·65	0·65	1·17	1·15	1·15
Khalasee	92	07·6	0·64	07·0	1·10	1·05	1·07
Cable joiner	1	2·50	2·50	2·50	..	..	..
Wireman	5	1·11	0·65	0·88	1·70	1·29	1·49
Fuseman	8	0·58	0·48	0·53	1·60	1·22	1·41
Meter reader	7	0·87	0·65	0·78	1·49	1·23	1·36
Turbine Attendant	5	1·36	0·81	1·08	1·92	1·37	1·65
Head Linesman	2	2·58	2·18	2·37	3·72	3·57	3·64
Asstt. Turbine Attendant ..	5	0·71	0·65	0·68	1·27	1·21	1·24
Asstt. Boiler tindel	5	0·81	0·65	0·73	1·37	1·21	1·29
Mason	2	1·61	1·55	1·58	1·61	1·55	1·58

D. United Provinces.

In the Power Station that was investigated, there was no definite official system of graded or time-scale promotion. A list of designations and grades was in existence, but this list has been soperseded. The following figures

show minimum and maximum wages in 1939 and 1944 for some important occupations :—

TABLE 110.

Wages in a U. P. Power Station.

Designation.	31st May 1939 Basic Wages		January 1944 Wage Rates		Average.	
	Min.	Max.	Min.	Max.	Wages	Earnings
Armature winder (Heavy)	32	80	53	100	..	..
Attendants (Turbine, Boiler, Switch Board, etc.)	35	70	80	110	..	..
Asst Attendants (Boiler, Switch Boards, etc)	35	45	35	80	..	..
Blacksmith	24½	52½	43	60	51	83
Carpenter	37½	60½	38	68	..	..
Chargeman	85	130	75	200	..	..
Cleaner	..	..	18	21	..	..
Coolie	..	..	18	..	18	49
Jamadar Coolie	18	20½	20	27	..	..
Craneman	30	..	27	40	..	..
Driller	30	37½	35	40	..	..
Electrician	135	..	63	..	..	..
Fireman	18½	..	23	..	..	..
Fitter	18½	65	37	67	49	84
Grinder	..	..	25	..	..	..
Improver	25	30	20	30	..	..
Linesman	18½	37	25½	31½	..	..
Masons	37½	41½	25	48	..	..
Fan Mechanic	55	..	70	..	..	..
Motor Mechanic	45	67½	70	80	..	..
Moulder	30	60	48	75	57	89
Painter	..	50	25	60	38	71
Fan Repairer	30	45	35	60	..	..
Sweeper	16	..	17	..	..	..
Tinsmith	37½	..	52	..	..	..
Turner	22½	56½	35	65	52	84
Welder	45	90	45	90	..	..
Wireman	22½	45	27½	60	..	..

E. Punjab.

In both the Power Station, workers are employed on graded scales. The scales are as follows in one concern :—

TABLE 111.

Wages in a Punjab Factory.

Category	Old scale applicable to workers appointed before 16-7-1931.			Revised scale applicable to workers appointed after 15-7-1931.		
	Min.	Increment (annual)	Max.	Min.	Increment (annual)	Max.
	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
Coolie	0 9 0	0 1 0	0 11 0	0 10 0	0 1 0	0 12 0
Semi-skilled workers	0 12 0	0 1 0	1 0 0	0 14 0	0 1 0	1 2 0
Skilled workers	1 2 0	0 1 0	1 8 0	1 4 0	0 2 0	2 8 0
	1 10 0	0 2 0	2 0 0	..	..	..
	2 4 0 (fixed)					
Mistry	2 6 0	0 3 0	2 12 0	2 10 0	0 3 0	4 2 0
	3 0 0	0 4 0	3 8 0	4 4 0	0 4 0	5 8 0
	3 12 0	0 4 0	4 12 0			

The standardised wage rates in the other concern are as follows :—

TABLE 112.

Monthly Wage-scale in a Punjab Factory.

Occupations	Scale of Pay (in rupees)
Switch Board Operators and Turbine Drivers	50—5—75
Assistant Switch Board Operators (Junior)	30—3—45
Relief and Turbine Drivers, Fitters, and Turners (Junior)	50—4—70
Firemen	35—4—55
Water Attendants and Outside Pump Attendants	25—2—35
Condenser Attendants	20—1—25
Coal coolies and Turbine room cleanrers	17—1—22
Turbine fitter	125—10—175
Fitters (senior), Turners (senior) and Boiler fitters (senior)	70—5—95
Assistant fitters and Assistant turners	35—3—50
Blacksmiths	50 (fixed pay)
Kiln attendants	17 ,,

Monthly wages and earnings of unskilled workers in the two concerns are given below :—

TABLE 113.

Monthly Wages and Earnings of Unskilled Workers.

Concern	Basic Wages		Gross Earnings	
	Daily-rated	Monthly-rated	Daily-rated	Monthy-rated
	Rs as. P.	Rs. as. P.	Rs. as. P.	Rs. as. P.
I	30 14 0	19 8 0	30 14 0	30 8 0
II	16 4 0	..	33 4 0	..

In both the concerns, basic wages have not increased during war time. Only temporary coolies who are paid daily wages seem to be receiving their wages at a rate higher than the pre-war rate. The earnings of coolies have increased from 8 as. in 1939 to about Rs. 1-2-0 to Rs. 1-4-0 now.

F. Bihar.

Basic wages now are generally higher than they were in 1939. The present position (in February 1945) is shown below :—

TABLE 114.

Wages and Earnings in a Bihar Electrical Workshop.

Name of Occupation	Wage-rates		No. of workers employed	Basic Wages Earned			Gross Earnings		
	Max. Rs. as. p.	Min. Rs. as. p.		Max. Rs.	Min. Rs.	Avr. Rs.	Max. Rs.	Min. Rs.	Avr. Rs.
Fitters	2 8 0	2 4 0	31	60	30	45	87	48	67
Turners	2 8 0	2 4 0	18	84	36	48	120	55	69
Electricians	2 4 0	1 4 0	8	48	24	38	72	35	58
Blacksmiths	2 0 0	1 4 0	4	60	48	53	86	71	77
Carpenters	1 10 0	1 4 0	30	51	27	36	75	45	56
Khalasis	1 0 0	0 12 0	3	..	..	24	..	..	37
Welders	2 8 0	2 4 0	2	60	54	57	89	81	85
Machinemen (tool)	1 4 0	1 0 0	80	39	17	24	60	20	40
Helpers	1 0 0	0 12 0	51	21	14	16	37	27	29
Setters (Dies)	piece-rated		13	41	24	32	105	66	77
Block stoppers	,,	,,	41	35	15	27	93	48	67
Coolies	,,	,,	23	16	12	14	48	25	36
Rejas	,,	,,	3	..	..	12	..	..	44
Coolies	0 9 0	0 8 0	371	17	12	13	31	22	25
Rejas	0 12 0	0 7 6	138	15	9	11	25	19	21

NOTE :—Number of days to which wage figures above refer : 24 days in February 1945.

Dearness Allowance.—Various methods, as shown in the following table, are utilised for the payment of dearness allowance :—

TABLE 115.

Methods of Payment of Dearness Allowance.

Province	Number of Concerns paying Dearness Allowance on the following system						
	No. of concerns	Flat rate for all	Different flat rates for different groups	Sliding scale based on cost of living index	Based on percentage basis	Mixed (more than one method)	No. of concerns paying no d. a.
Madras ..	4	1	2	..	..	1	..
Bombay ..	20	4	6	9	..	..	1
Bengal	14	2	2	..	5	3	2
U. P.	1	..	..	1	..	..	..
Punjab ..	2	..	..	..	..	2	..
Bihar	1	..	1	..	..	..	..
Total ..	42	7	11	10	5	6	3

Only three out of the forty-two concerns investigated have no system of dearness allowance. Two (both Bengal concerns) of these three used to pay cash dearness allowance up to December 1943, when the wage rates were increased so as to include dearness allowance. Out of the seven concerns which pay dearness allowance at a flat rate, three pay at daily rates, while the remaining four pay at monthly rates. The daily rates are between 6 as. and 15 as. and the monthly rates vary from Rs. 8 to Rs. 16. Eleven concerns pay dearness allowance at flat rates, but the amount varies according to different income groups. Out of these eleven concerns, six are Bombay Power Stations where the present schedule is (i) Rs. 19 p. m. for the first Rs. 50 or less of monthly salary and (ii) Re. 1 for each Rs. 10 of monthly salary in excess of Rs. 50 p. m. ; allowance payable in accordance with the above is subject to a maximum limit of Rs. 200 p. m. The flat rates of dearness allowance paid in the remaining five concerns are given below :—

TABLE 116.

Flat Rates of Dearness Allowance.

Province	Concern	Per month or per day	Income Groups and Rates of Dearness Allowance				
			I	II	III	IV	V
Madras ..	I I. G	P.m.	Up to Rs. 20	Rs. 21 to Rs. 60	Rs. 61 to Rs. 100	Rs. 101 to Rs. 200	..
	D.A.	,,	Rs. 9	Rs. 12	Rs. 19	Rs. 30	..
	II I. G.	,,	Up to Rs. 40	Rs. 40 and over	..	..	..
	D.A.		Rs. 10	Rs. 13	..	..	..
Bengal.. ..	I I. G.	p. d.	Up to Rs. 1-4-0	Rs. 1-5-0 to Rs. 1-9-0	Rs. 1-10-0 to Rs. 2-8-0	Rs. 2-9-0 and over	..
	D.A.	p.m.	Rs. 12-8-0	Rs. 14	Rs. 15	Rs. 18	..
	II I. G.	p. d.	Up to Re. 1	Re. 1 to Rs. 1-7-0	Rs. 1-7-0 to Rs. 1-8-0	..	..
	D.A.	,,	5 as.	6 as.	7 as.	..	..
Bihar	I.I. G.	p. m.	Up to Rs. 100	Rs. 101 Rs. 200	Rs. 201 Rs. 300	Rs. 301 to Rs. 400	Rs. 401 to Rs. 500
	D.A.		Rs. 10	Rs. 13	Rs. 16	Rs. 20	Rs. 25.

I. G. Income Group
D. A. Rate of Dearness Allowance.

It will be seen from the above figures that the actual amount of dearness allowance increases with the higher income groups but that as a percentage of basic wages, it decreases considerably.

Out of nine Bombay concerns, seven follow the sliding scale prepared by the Bombay Milloweners' Association and based on the cost of living index. One days $2\frac{1}{2}$ as. as dearness allowance for every point of the Cost of Living Index.

The remaining concern, a Power Station in Ahmedabad, has the following scale :—

TABLE 117.

Dearness Allowance Paid in an Ahmedabad Power Station.

Income Group.	Rate of Dearness Allowance.
(*i*) Up to Rs. 65 p.m.	One and a half times the basic allowance.*
(*ii*) For the next Rs. 40 p.m. of salary ..	10% of basic allowance for each Rs. 5 or part thereof increase in salary above Rs. 65. p.m.
(*iii*) For the next Rs. 200 p.m. of salary ..	10% of basic allowance for each Rs. 40 p.m. or part thereof, increase in salary above Rs. 80 p.m.
(*iv*) For the next Rs. 219 p.m. of salary ..	10% of basic allowance for each Rs. 80 p. m. or part thereof, increase in salary above Rs. 280 p.m.
(*v*) For all salaries exceeding Rs. 524 P.M	No allowance.

*Basic allowance is at the rate of 2 as. per point for each point by which the Ahmedabad Cost of Living Index exceeds 70 but does not exceed 150.

The following Schedule of the War Dear Food Allowance, based on the cost of living index figures declared monthly by the Employers' Association of Northern India, Cawnpore, operate in the U. P. Power Station investigated :—

TABLE 118.

Dearness Allowance in a U. P. Power Station.

Wage Category.	Dearness allowance (as. in the rupee) when the Cost of Living Index Figure is between					
	101-120	121-140	141-160	161-180	181-200	201 & over.
Under Rs. 19	2	4	5	7	Minimum 6½ as. per worker per day (equivalent of Rs. 10-9-0 p.m. of 26 working days	Last column plus 1-4 pies per point of increase 201 to 220 points per worker per day (calculated to the nearest anna).
Rs. 19 to Rs. 25 ..	1½	3	4	5½		
Rs. 25 to Rs. 32-8-0 ..	1	2½	3½	5		
Rs. 32 -8-0 to Rs. 40 ..	¾	2¼	3¼	4¼		
Rs. 40 to Rs. 59 ..	½	2	3	4		
Rs. 59 Rs. 75	¼	2	3	4		
Rs. 57 to Rs. 150 ..	*Nil*	1½	2¼	3		

NOTE.—An Emergency War Allowance 20 per cent. of the salary with a minimum of Rs. 50 p.m. paid to employees drawing from Rs. 500. The percentage of this allowance for employees drawing over Rs. 500 is lower.

Only five concerns, all in Bengal, grant dearness allowance as a percentage of the monthly wages earned. These percentages are : (i) 10 per cent., (ii) 10 per cent. with minimum of Rs. 5 p.m. and a maximum of Rs. 15 p. m., (iii) 25 per cent. subject to a minimum of 4 as. per day, (iv) 50 per cent. and (v) 10 per cent. subject to a minimum of Rs. 17-8-0 p. m. Six factories use more than one method for the payment of dearness allowance. In a Madras factory, for example, dearness allowance is calculated according to the cost of living index, and amounts to : (i) for those getting less than Rs. 50 p. m. : Rs. 16-8-0 p. m. at index 200, plus 2 as. for each point of rise in the index ; (ii) for those getting Rs. 50 or more up to Rs. 100 : Rs. 14 p. m. at index 200, plus 2 as. for each point of rise ; and for those getting more than Rs. 100 p. m., it is 10 per cent. of pay. Dearness allowance is proportionately reduced according to the number of days the worker is absent in a month. In a Bengal concern, the rate is 10 as. per day for the daily-rated workers and 15 per cent. of the pay or Rs. 16 p. m. whichever is higher, for the monthly paid staff. In another Bengal concern, dearness allowance is fixed at 2 as. per rupee earned plus 4 pies per hour worked. In a third concern in Bengal, the rate is Rs. 14-8-0 p. m. for those whose basic wage does not exceed Rs. 97 p. m. and at the rate of 15 per cent. of the basic wage per month for those whose basic wage exceeds Rs. 97. Both the concerns investigated in the Punjab have a mixed method for the payment of dearness allowance as follows :—

TABLE 119.

Dearness Allowance in the Punjab (Based on the figures of 2 concerns).

Concern	Income Groups and Dearness Allowance.
I	I. G. (*i*) Below Rs. 40 (*ii*) Rs. 40 and above D.A. (*i*) Rs. 17 (*ii*) Rs. 19 or 17% of pay, whichever is less
II	I.G. (*i*) Up to Rs. 30 (*ii*) Rs. 30-40. (*iii*) Rs. 100-150 (*iv*) Rs. 150-250. (*v*) Rs. 250-275.
	D.A. (*i*) Rs. 11. (*ii*) Rs. 14. (*iii*) 10% of pay or Rs. 14 whichever is greater. (*iv*) 10% of pay. (*v*) At such rate which will raise the total remuneration to Rs. 275.

Bonus and Other Allowances.—27 concerns (Madras : 1, Bombay : 16, Bengal : 7, U. P. : 1, Punjab : 1 and Bihar : 1) were paying bonus to their workers in war time. In most of the cases bonus is temporary and depends upon increased production and profit.

In Madras, only one of the four concerns investigated has given bonus equivalent to one month's wages since 1942. Another concern grants a special pay of Re. 0-1-9 per day per worker and also two hours' wages per week as 'Saturday Bonus' to those who attend regularly throughout the week and to those who are absent on leave with wages for a period not exceeding two days in a week.

In Bombay, 16 out of 20 concerns investigated, grant war bonus, the details of which are given below :—

TABLE 120.

Bonus in Bombay Factories.

Concern	Amount of Bonus granted	Conditions
A	12½% of annual basic earnings	Worker must be on the roll at the end of the previous financial year.
B	1 to 3 months' wages ..	
C	1 month's salary.	
Tata Hydro Electric (6 concerns).	Generally 1 month's salary ..	It is paid after 1 year's satisfactory service provided the worker is in service at the time the bonus is declared.
BEST (7 concerns)	1/12th of the basic earnings (paid in May 1944 & Nov. 1944).	Full amount in case of employees having 12 month's service and over.

Like dearness allowance, bonus system has also undergone many a change. In the BEST factories, for example, during a period of less than 4 years (May 1940 to February 1944) bonus was paid ten times at the rate of 1|24th of the annual basic earnings. Besides dearness allowance and bonus, other allowances are given only in two factories. In a Sholapur Power Station, since the introduction of the rationing scheme in December 1943, the grain allowance is paid in cash which comes to approximately Re. 0-4-9 per day. This allowance will be stopped when rationing is withdrawn. In the other Bombay concern, a Heavy Duty Allowance of 1 as. per day is given to those who are engaged on coal and ash handling and boiler cleaning.

In Bengal, bonus system exists in five electrical workshops and two power stations. In one electrical workshop, an attendance bonus is paid at the rate of 10 per cent. of basic wages subject to a maximum of Rs. 6 per month, and on the condition that the worker is present on every day and is not late beyond 10 minutes allowed as grace. To the foundry workers and supervisory staff a production bonus is paid at the rate of Rs. 2-8-0 per cwt. produced over 10 tons per month and at the rate of Rs. 3 per cwt. beyond one ton in case of non-ferrous metal production. Supervisory staff is also paid one month's pay in the year as bonus. Excepting the attendance bonus, other bonuses are temporary. Another electrical workshop grants bonuses in the form of an annual profit bonus to its workers twice a year at the rate of one month's pay subject to good record of service. In a third concern, a special war bonus equal to 15 days' pay was paid to all the workers in September 1943, subject to the condition that any one leaving the service of the company within the next three months would have to refund the amount ; another war bonus equal to 26 days' wages was paid in September 1944, on similar conditions. The only permanent bonus allowed every year is 15 days' pay subject to good attendance. In the fourth electrical workshop, an annual production bonus was granted thrice, in March 1943, and in May and June 1944. For the payment of this bonus a lump-sum amount was fixed for each department and the departmental head distributed the amount in accordance with the quality and quantity of individual output subject to

the condition of a minimum length of service of one month previous to the declaration of the bonus. The fifth electrical workshop awards bonuses to its workers at the rate of one month's pay twice a year (at Puja and Christmas) to ensure regularity of attendance and careful workmanship. The only condition attached to the payment of this bonus is that the total period of absence during the year should not exceed one month. One of the Bengal Power Stations grants an annual profit bonus only to those whose basic wages are above Rs. 220 p. m. with the result that the lower paid workmen are deprived of this benefit. In another power station, a bonus equivalent to one month's pay was paid to all permanent workers who worked throughout the year 1944.

In the power stations investigated in U. P., a bonus and a special war gratuity were paid for the financial year ending December 1943, to employees whose services during that year had been satisfactory, who had completed full calendar year's service, and, in the normal way, were in the employment of the Corporation when these privileges were sanctioned. The rate declared was one anna per rupee for bonus and 6 pies per rupee for special war gratuity of the basic earnings (excluding allowances) of the employees for the year 1943. Those payments are *ex-gratia* and are payable entirely at the discretion of the Agents from year to year. The rate of bonus is linked to the rate of dividend paid on ordinary shares.

One of the two factories investigated in the Punjab pays a bonus equal to 3 months' wages.

The Bihar factory paid bonus equivalent to basic wages of 4 weeks for 1940-41, of 8 weeks for 1941-42, of 2 months each for 1942-43 and for 1943-44. The bonus is paid to every employee who has worked throughout the financial year with which the payment is connected and who is still in the employment of the factory when the annual bonus is declared. The factory also granted from 1st May 1942, to 31st January 1945, an A. R. P. Allowance of 20 per cent. of the basic salary with a minimum of Rs. 10 and a maximum of Rs. 100 to every employee who volunteered to be a member of the various A. R. P. services and who attended lectures, parades and practices. This allowance has now ceased. Another allowance granted by the factory is food concession. It is a financial concession against food purchases to stabilise the rates of essential foodstuffs at the October 1942, levels and has been given since early 1943.

Overtime.—At the time of *ad hoc* enquiries, overtime was being worked in 41 out of the 43 concerns investigated. The rate of overtime payment lacks uniformity but the provisions of the Factories Act in regard to extra payment for overtime are generaliy observed. Hours worked beyond the daily hours of work are treated as overtime and are paid at 1¼ times the normal rate up to a maximum of 10 hours per day and at 1½ times for hours worked in excess of 10 hours. In some concerns, however, the payment is more liberal. In a Madras factory, for example, over and above the overtime rates [which are (i) ordinary rates for overtime worked between 6 p.m. and 9 p.m., (ii) 1½ times the normal rate for hours worked between 9 p.m. to 12 midnight, and (iii) twice the normal rate for hours worked between 12 midnight to 8 a.m.], the worker on overtime is also paid Rs. 1-4-0 extra for food and other expenses. In a Bengal electrical workshop, workers working overtime are given the option of compensatory leave or payment at the normal basic rate. Many factories make 100 per cent. extra payment for work on Sundays and holidays. Overtime seems to be voluntary, except in the Bengal Power Stations and in the Bihar factory. Separate registers are generally main-

tained for recording overtime. It has been stated by the employers that the registers are open to inspection by the workers or their representatives.

Deductions and Fines.—Deductions are made in 30 concerns and fines are imposed in 17 concerns. Deductions were made and fines imposed mainly for the reasons mentioned in the previous chapter. The U. P. factory, however, mentions following additional items for which deductions may be made : (i) amounts for purchase of Defence Saving Certificates on behalf of employees or contribution towards War Fund ; (ii) adjustments due to excess payment in previous months or due to rounding off to nearest rupee or nearest anna of the net payment on account of shortage of small coins ; and (iii) decretal amount against the employee on the orders received from the Court of Law. The amount in the Fine Funds varies from factory to factory. In Bombay out of the eight concerns which impose fines, seven belong to the BEST Company, whose consolidated fines fund has an amount of nearly a lakh of rupees and is utilised for granting interest-free loans or small donations to poor workmen or those injured in tramway accidents. In a Bengal electrical workshop, there were 326 cases of fines with a total amount of Rs. 44-10-0 in the Fine Fund in 1943. In another workshop, the amount in this account in 1943, was found to be Rs. 29-13-9. In the other section of the industry, according to the management, fines are generally not imposed, but it was gathered during the course of investigation that fines were imposed for careless and negligent work, often in contravention of the provisions of the Payment of Wages Act. In a Calcutta power station, employing more than 4,000 workers, the amount outstanding in the Fine Fund is only Rs. 492-14-6. In a Punjab power station, employing about 750 workers, the total amount of fine collected from September 1940 to February 1945, was only Rs. 36-6-6, while the total deductions from June 1942, to November 1943, amounted only to Rs. 42-10-0. The fine fund, wherever it exists, is at the disposal of the Works Manager and is spent on welfare activities such as sports, medical aid, etc., for the workers. The fine fund of a Calcutta power station is usually spent on celebrating ' Viswakarma Puja ' (worship of the tools) every year. In a Punjab factory, the whole amount realised as fines is credited, it is claimed, to the Staff Benefit Fund, for such purposes as medical relief, diet charges of the families of lower paid staff, supply of spectacles, supply of artificial limbs to low paid staff, recreation and amusement including grants to Boy Scouts Association and educational assistance to the workmen's children. It was, however, alleged by others that only a part of the amount collected as fines was credited to the Staff Benefit Fund.

Wage-Period.—All the factories investigated in Madras, Bombay, U. P. and the Punjab pay their workers monthly. In Bengal, out of the nine electrical workshops investigated, two pay their workers monthly, two fortnightly, four weekly ; in the remaining concern payment is made every ten days. Of the five power stations surveyed in Bengal, one makes weekly payments, two make monthly payments, while in the remaining concerns, permanent workers are paid monthly and casual labour weekly. In the Bihar factory, the period is weekly for all workers whose daily basic rate does not exceed 8 as. ; for all other workers the period is a calendar month.

The waiting period, however, differs from unit to unit and in a few cases from department to department in the same unit. Monthly-rated workers are, in some concerns, paid on the last day of the month or on the first day of the next month, while daily-rated workers are paid before the seventh or tenth of the month following, according to the Payment of Wages Act. In the electrical workshops, in Bengal, the waiting period ranges from 2 to 6 days.

10891 4

Holidays.—There is no uniformity as regards closed holidays in the factories investigated. The following table, however, has been prepared from the statements obtained from the various factories, though its accuracy is limited because the number of holidays are affected by such factors as the extent and nature of leave facilities, the working of the shifts, the nature of work carried on, etc.

TABLE 121.

Nature of Holidays.

Province	No. of Concerns Granting			
	1½ weekly holidays plus public holidays	1½ weekly holidays	One weekly holiday	One weekly holiday plus public holidays
Madras	2	1	..	1
Bombay	..	..	10	10
Bengal	..	1	7	7
U. P.	..	..	..	1
Punjab	..	..	1	1
Bihar	..	..	1	..
Total ..	2	2	19	20

The weekly holiday is Sunday, but if a festival or public holiday comes in the week, Sunday is considered as a working day. In one factory, Friday is a weekly holiday for Muslims, whereas Sunday is for all others. The number of public holidays, which are granted in addition to the weekly holiday, varies from 2 (in seven Bombay factories) to 18 (in the U. P. factory). Holidays may be with or without pay. For example, in one Bengal factory, all Sundays are observed as holidays with pay, whereas Bank holidays are observed as holidays without pay. In another Bengal factory, Sundays are regular closed days without pay, whereas nine festival holidays with pay are granted. In a third factory in the same Province, all Sundays and in addition seven festival holidays are closed holidays and all of them are without pay. The U. P. factory, which grants Sundays plus eighteen other holidays, all with pay, seems to be very liberal ; there are about 85½ days, including Sundays and leave excluding sick leave, in the year as non-working days for all employees except those on a temporary basis. In a Bengal electrical workshop, 15 days bonus in lieu of holidays is allowed.

III.—Working Conditions.

Shifts and Hours of Work.—Due to war conditions requiring intensive production and because of the nature of work in this industry, it was found necessary to run various types of shifts in different sections of the factory to balance the production ; single, double and multiple shifts, generally with different sets of people, are worked. In the U. P. factory, for example, the workers have been divided into seven main groups with as

many as 57 shifts. The Bihar factory has also 5 groups of workers with 19 shifts. A number of factories (1 in Madras, 9 in Bombay and all the six Power Stations in Bengal) have three continuous shifts, almost all of which are of 8 hours' duration. In seven cases, these shifts are in addition to the general or the normal shift which is worked by the majority of factory workers, who are not employed on continuous-process work. Besides these continuous shifts, some of which are naturally night-shifts, very few factories (2 in Bombay and 2 in Bengal) actually work the night-shifts, with daily hours of work varying between 7½ and 8½. All the four factories in Madras, four in Bombay, one in Bengal and one in Bihar work less than the normal hours on Saturdays ; the actual hours of work vary from 4½ to 6 and the majority of them work 5 or 5½ hours without any rest interval. The general idea of the hours of work and shifts, bearing in mind the above-mentioned exceptions, can be had from the following table which takes into consideration the main shift in each factory investigated.

TABLE 122.

Shifts and Hours of Work.

Nature of Normal Shift.			Number of factories in which this arrangement obtains.					
Actual hours of work	Rest interval	Spread over	Madras	Bombay	Bengal	U.P.	Punjab	Bihar
7½	1	8½	..	1	..	..	..	..
8	½	8½	..	..	2	..	..	..
8	1	9	1	2	2	..	..	..
8	2	10	..	1	..	..	..	..
8½	½	9	..	..	1	..	..	..
8½	1	9½	3	6	..	..	..	..
8½	1½	10	..	3	..	1	..	1
9	1	10	..	4	..	..	1	..
9½	½	10	..	..	1	..	..	..
10	1	11	..	..	1	..	..	..

Overlapping shifts seem to be rare. One of the Bombay factories works three shifts, two of which are overlapping as follows : (i) 8 a.m. to 5-30 p.m. and (ii) 1 p.m. to 10-30 p.m. Such shifts, however, are worked with different sets of workers.

Ventilation, Lighting, Congestion, Flooring, etc.—Almost all the electrical workshops have pucca flooring with roofs constructed of corrugated iron sheets or asbestos. To ensure sufficient light and air most of the units have a number of ventilators as well as electric lighting arrangements. The nature of work both in electrical workshops and in the power stations forbids any congestion. This is the general picture of the working conditions in the units investigated. However, there are a few exceptions. One of the electrical workshops in the City of Bombay, employing more than 500 workers, has been housed in a small one-storeyed residential building. In a

room of approximately 30 ft. × 30 ft., about 200 workers were working, standing in six rows. The room was ill-ventilated and no attention was being given to cleanliness and protection from heat. The Company, however, intends to shift to a better locality in the suburbs. On the other hand, one of the Bengal factories has fitted an air conditioning plant to regulate the temperature inside the chamber. In another factory, workers working in a heated atmosphere get free milk once a day. A number of factories utilise exhaust fans, glass panes, skylights and ventilators.

Shelters.—Only 8 factories (3 in Bombay and one each in Madras, Bengal, U. P., Punjab and Bihar) have provided shelters for their employees during rest intervals. The main reason for not providing shelters is the absence of opportunities to avail of them in factories working on continuous processes. In such factories there are no regular rest intervals. The Madras factory has four well-built rest shelters with paved floor for Hindus, Muslims, Christians and *Adi-dravidas* separately. In Bombay, the area of one shelter is only 13 ft. × 50 ft. ; another shelter is a tin-shed while the third is a double storeyed rest-house of cement-brick construction. The Bengal concern, an electrical workshop, has an area of 140 ft. × 50 ft. The U. P. factory has two rest-houses—one at the generating station and the other at the receiving station ; the former is about 85 ft. × 55 ft., with several rooms, while the latter is a big hall of 100 ft. × 18 ft. Both are provided with ventilators, windows, electric lights, electric fans, water taps, *takhats*, tables, chairs, racks, wooden partitions, mats, spitoons, etc. The Punjab factory has a pucca-built shelter with benches. The Bihar factory has a tiffin-room with a steel frame building, 18¾ ft. high and a roof of asbestos cement sheets. The building measures 25 ft. × 45 ft. and contains two water taps. Besides, there are two gardens, with cement seats and drinking water taps, which are regularly used by the aboriginal workers at rest intervals.

IV.—Welfare Activities.

Sanitary Arrangements.—Sanitary arrangements, on the whole, seem to be satisfactory, except in some Bengal factories which do not keep latrines and urinals clean. Sometimes the municipal drains in front of the factory get water-logged and give out a very offensive smell exuding from putrifying matter. In the absence of clean latrines and urinals, workers often make use of municipal drains. In the Bihar factory, for 795 male and 190 female workers, there are 36 latrines (24 for men and 12 for women) and 20 urinals. Washing and bathing facilities and supply of cool water for drinking are not very common in this industry.

Medical Aid.—Very few factories have provided proper and adequate medical aid as can be seen from the following figures :—

TABLE 123.

Medical Aid.

Province	No. of factories investigated	Number of Factories having		First Aid box
		Dispensaries	Doctor	
Madras	4	1	..	3
Bombay	20	13	6	1
Bengal	15	4	1	10
U. P.	1	1	..	..
Punjab	2	1	1	..
Bihar	1	1	..	..
Total ..	43	21	8	14

Many of the factories included in the last two columns utilise public dispensaries or hospitals, with or without a contribution. The Tata Hydro-Electric Agencies in the Bombay Province maintain a dispensary at each of their generating stations which are in rural areas. In receiving stations which are in urban areas, workers getting Rs. 100 and less are given free medical treatment by Company's Medical Officer. In a number of factories the doctors employed are on a part-time basis and work more or less as medical consultants. Some of the factories have more than one dispensary ; for example, a Calcutta Power station has six dispensaries, each being attached to the generating stations and sub-stations or the Mains and Testing Departments, and under a qualified Medical Officer. The U. P. Power Station has two dispensaries. Details about the dispensaries are given below :—

TABLE 124.

Details about Dispensaries.

Province	No. of Concern	Details about dispensaries.		Cases treated per day	Remarks
		Doctor's pay (Rs. p.m.)	Doctor's Qualifications.		
Madras		79	Licentiate ..	..	(*i*) Doctor is part-time. (*ii*) Full-time compounder on Rs. 39-12-0 p.m.
Bombay ..	I	425	M. B. B. S.	58	
	II	525	L. M. & S. ..	70 to 77	
	III	350	M. B. B. S.	90	
	IV	100	L. C. P. S. ..	..	Dispensary in common with a textile mill.
	V	150	M. B. B. S.	20	
	VI	75	L. C. P. S. ..	44	(*i*) Doctor gets Rs. 7-8-0 in addition as visit fee. (*ii*) Compounder on Rs. 50 p.m.
	VII	250	M. B. B. S.	120	One more doctor (M.B.B. S.) on Rs. 120 p.m.
Bengal	I	..	M. B. ..	30	
	II	..	Physician ..	84	
	III	..	M.B. ..	38	
U. P.	I	250	Licentiate ..	80	(*i*) Doctor is part-time.
Bihar	I	170	M. B. ..	197	(*i*) Provision for medical and surgical treatment. One more L.M.P. doctor on Rs. 130 p.m.

NOTE :—Generally the doctor gets dearness allowance in addition to his salary.

The usual diseases are fevers—mostly malarial—colds, coughs, bronchitis, asthma and occasional diarrhoea, dysentery, skin troubles and very occasionally infectious diseases like measles, small-pox, chicken-pox, influenza, enteric fever, etc. The only occupational disease found was dermatitis in a very

few cases. In some factories, however, the workers are exposed to unhealthy fumes of chromium which accumulate in the electro-plating chamber and to effects of chemicals used in paints and varnishes when the painting of blades of electric fans is done. Regular periodical examination takes place only in 3 or 4 factories six-monthly, annually or biennially. In many factories, however, workers are medically examined before recruitment.

Canteens.—Only fourteen factories have canteens for their workers. The details are as follows :—

TABLE 125.

Canteens.

Run and managed by	Number of factories having canteen in—		
	Bombay	Bengal	Punjab
Company	4	1	..
Contractors	5	1	1
Workers' Co-operative Societies	1	1	..
Total ..	10	3	1

None of the factories investigated in Madras, U. P. and Bihar has a canteen. The most common justification for the non-establishment of a canteen is that the workers can utilise the restaurants nearby. However, there are a number of factories, especially power stations, which are situated far away from urban areas. None of the power stations in Bengal, for example, runs a canteen. Similarly the power station, investigated in Madras, is situated in a place where there are no restaurants or other places which supply food or refreshments. Workers come from far-off places and have to work at all odd hours according to shift arrangements. Some of the factories, however, which have no canteens of their own, make some alternative arrangements. The U. P. factory, for example, utilises a canteen run in its sister-concern by the Tea Market Expansion Board. The canteen arrangements vary from unit to unit. In one of the Bombay factories, only tea is provided for day shift workers once in the evening at a nominal charge of as. 8 per month ; tea is supplied free to the night shift workers. Another Bombay factory has the 'Bhat' (Brahmin tea supplier) arrangement. Light refreshments and cigarettes are also available in most of the canteens. Only four canteens (three in Bengal and one in Bombay) supply midday meals. Two of these canteens are run on a co-operative basis by the workers. The establishment charges (cost of utensils, kitchen) of these co-operative canteens are borne by the Company and the cost of the meals, which is very low, is shared by the members. A feature of a few canteens is the communal division. One of the Bombay factories, for example, has two canteens, one for Hindus and the other for Christians. A Bengal canteen has been partitioned into two sections, one for Hindus and one for Muslims.

Creche and Education.—Female labour is practically absent, except in the Bihar factory. This factory, therefore, is the only one, which maintains a

Creche, which is intended for the use of workers' children up to six years of age. Educational facilities for workers and their children are inadequate and have been made only in 14 factories (1 in Madras, 10 in Bombay 2 in Bengal and 1 in U. P.). One of the factories investigated in Madras is owned by Government and utilise a Government Training School for the training of its workers. In one of the Bombay factories, as a part of the literacy drive, two night classes impart free education to workers. Another factory has maintained a Recreation Club Library, while the B. E. S. T. Company gives encouragement to its employees for technical education by allowing them to attend certain recognised coaching classes and refunding tuition and examination fees. The only Bombay factory, providing education for workers' children, is a mofussil power station, which runs a primary Marathi School. In Bengal, only two factories, both power stations, have provided educational facilities ; these are restricted only to workers' children, who get free primary education. In the U. P. factory, a night school for workers is conducted chiefly for imparting literacy in Urdu, Hindi, and English ; suitable books, newspapers and magazines are provided and also a radio for news, lectures and music. As for the education of the workers' children, the privilege of admitting them in the Boys' and Girls' schools, run by the Managing Agents of the factory, has been granted. In the Bihar factory, there were educational facilities in peace time, but now the military occupation of the buildings has made the imparting of education a very difficult proposition.

Grain Shop.—As many as 34 factories (Madras, 2 ; Bombay 17 ; Bengal, 12 ; U. P., 1 ; Punjab, 1 and Bihar, 1) have maintained grain shops, most of which are ration shops, selling rationed (and often other) articles at Government controlled prices. Grain shops in three of these factories (Madras, 1 and Bombay, 2) are managed by the Workers' Co-operative Societies. Many of these shops sell the articles at rates cheaper than the market ones. In a Bengal power station, all employees are debited monthly with the Government price of rationed foodstuffs purchased (on credit) and receive a "Cheap Food" rebate of Rs. 7-3-0 per month representing the difference between the Government price of rice, wheat and wheat products and sugar and the subsidised prices at which these articles were sold before the introduction of rationing. Employees also derive some benefit out of the purchase of non-rationed articles such as *dal*, mustard oil, kerosene and matches at prices lower than the bazaar rates. The benefit from these is about Rs. 5-8-0 per head per month. The U. P. factory supplies grains in the quantities and at the rates announced by the Employers' Association of Northern India, Cawnpore, from time to time. These rates are considerably lower than the market rates. In the Bihar factory, a cash concession is allowed on such purchase to adjust the food prices to the October 1942 basis. In Bombay, all the B. E. S. T. factories (seven of which were investigated) have two grainshops, where the rates are lower than the market rates by few annas.

V.—Housing Accommodation.

Most of the power stations in this industry are situated in far-away places and the nature of work demands the presence on the premises of a certain proportion of workers at all odd hours. Consequently, these workers are provided with housing just near the factories by the Management. Of the factories investigated, 15 factories (Madras, 1 ; Bombay, 5 ; Bengal, 7 ; Punjab, 1 and Bihar 1) have provided housing accommodation for their workers. Out of these 15 factories, 11 (Bombay, 5 ; Bengal, 5 ; and Punjab, 1) are power stations, while at least two of the remaining four (electrical

workshops) are situated far-away from urban areas. The details of housing provided by the sixteen factories are given below :—

TABLE 126.

Housing Accommodation.

Province	Concern*	Proportion of workers housed	Types of housing provided
Madras	E	100%	Government quarters with electric light.
Bombay	P1	75%	Permanent structure of stone and lime machinery.
	P2	60%	(i) Walls of rubble masonry, cement mortar asbestos sheet or tiled roofing.
	P3	100%	(ii) Flush lavatories, water-taps with Chlorinated water.
	P4	..	3 brick chawls of its sister-concern (cotton-mill).
	P5	20%	(i) Brick cement construction; tube-well water.
			(ii) Flush system with septic tanks and soak pits.
Bengal	E1	45%	2 pucca and 2 katcha houses.
	E2	86%	One katcha house.
	P1		Only for shiftmen in Power Stations.
	P2	16%	Single-storey pucca building with kitchens.
	P3	75%	100 pucca quarters (each 12′×12′).
	P4	90%	60 pucca single-storey quarters (each 10′ ×12′) with tiled roofs.
	P5	90%	Stone houses with iron or thatched roof. (Some are of bamboo matting and some are of concrete) ; service type latrines.
Punjab	P	50%	69 single rooms and 2 three-room quarters.
*Bihar	E	21%	Details are given in the next table.

E—Electrical workshop and P—Power Station

Note :—(i) Rents are not charged except in the first factory (Madras), where the rent is 10 per cent of the wages.

(ii) In factory P5 of Bengal, workers get either rent-free quarters or house allowance at the rate of 22½ % of pay.

TABLE 127.

Housing Provided in the Bihar factory.

Type of quarter	No. of quarters	Types of housing provided	Electricity		Rent (Rs.) p.m.
			Fans	h	
A	8	2 rooms (each 10′×10′), kitchen (10′×7½′), 2 verandahs and open yard ..		3	9
M4	28	2 rooms (12′×9′ and 8′×9′) kitchen, verandah and yard..	..	..	5
B	10	2 rooms (10′×10′ and 10′×7½′) verandah and yard	..	..	4
RN	24	1 room (10′×10′), verandah and yard	..	..	2½
New C ..	40	1 room (10′×10′) and verandah ..	..	..	*Nil.*
Old C ..	20	1 room (10′×10′) and verandah ..	..	..	*Nil.*
Modified RN ..	12	1 room (9′×10½′), kitchen, 2 verandahs and yard (These are for Watch and Ward)	..	..	2½
G5	4	3 rooms (14′×12′, 13′×12′ and 12′×12′), kitchen (10′×9′), store-room (9′×8′), 2 verandahs and yard	3	10	18
H6	8	2 rooms (each 12′×12′) kitchen (8′×13′) store room (8′×8′), 2 verandahs and yard	2	7	14
L4	8	2 rooms (10′×10′, 11′×11′), kitchen (8′×8′), 2 verandahs and yard ..	1	6	9
Modified M4 ..	52	2 rooms (each 9′×11½′), kitchen 2 verandahs and yard	1	5	6
Modified M4 ..	60	Same as above, but war-time construction	..		5½

NOTE: (*i*) The first seven types are in Old Housing Estate and the last five types are in New Housing Estate.

(*ii*) Types A, M4, B, RN, Modified RN, G5, H6, L4 and Modified M4 are all family quarters, while types C (Old and New) are for bachelors.

Water-supply is satisfactory, except in a few power stations, which are situated in hilly tracts or in forests. Sub-letting is prohibited, but because of war-time shortage of houses, congestion seems to be inevitable.

Information regarding workers living in houses other than those provided by their employers is scanty. Unskilled labour employed on outdoor work in the Generating Stations of the Tatas in the Western Ghats live in neighbouring villages mostly in their huts. In Madras, workers live mostly in rented quarters in several parts of the city of Madras and sometimes in suburbs about five miles away from the city ; the rent paid by workers ranges from Rs. 3 to Rs. 10 per mensem, being nearer the upper than the lower limit in most cases due to war-time congestion in the city. More than 50 per cent. of the workers in the Bihar factory are aborigines, who prefer to live in *Bastis* situated on the outskirts of the town or in villages. In spite of the absence of modern facilities like electricity and tap-water, the workers had better physique than the residents of the town.

VI.—Trade Unions and Strikes.

Trade Unions.—Some workers in two of the four concerns investigated in Madras are members of their respective unions. The details about unions in the Bombay Province are given below :—

TABLE 128.

Trade Union in Electrical Engineering—Bombay (compiled from Labour Gazette, Bombay).

Name of the Union	Date of Formation	Date of Registration	Membership
1 Engineering Workers Union, Bombay (Red Flag)	August 1939	February 1940	3,008
2 Calender's Cable and Construction Co. Ltd. Employees' Union, Bombay..	August 1942	November 1942	318
3 Electrical Engineers' and Wiremen's Association, Ahmedabad ..	October 1935	Unregistered	232
4 Tramwaymen's Union, Bombay ..	April 1927	May 1928	433
5 B.E.S.T. Workers' Union, Bombay..	September 1938	October 1938	800
6 Bombay Suburban Electric Supply Employees' Union, Santa Cruz ..	December 1943	June 1944	60
7 Poona Electric Supply Co. Kamgar Sangh, Poona	January 1944	..	255

Out of these, the first is a ' General ' Union. Both the tramwaymen's Union and the B. E. S. T. Workers' Union have far more members in the traffic staff of the B. E. S. T. than in the electric workshops. The Poona Electric Supply Co., Kamgar Sangh, which sent detailed replies to our *ad hoc* survey questionnaire, came into being when an agitation was being carried on by the workers of the Poona Electric Supply Co. for dearness allowance and bonus. The Union after about ten months' negotiations with the Company and the Government Labour Official gave a notice of strike on 8th November 1944. The Government, however, intervened and appointed an Adjudicator to settle the dispute. The monthly subscription of the Union is 2 as. for members earning Rs. 25 or less and 4 as. for others. In January 1945, out of 295 workers employed by the Company, 265 were members of the Union. In none of the nine electrical workshops investigated in Bengal, have the workers formed a Union. Workers in two factories, however, did make attempts in war time to start unions, but they did not succeed partly because of the discouragement on the part of employers. The Power Stations in Bengal, however, have organised two active unions, viz., the Calcutta Electric Supply Workers' Union and the Dacca Electric Supply Workers' Union. The former is a registered union with a membership of 1,532 and it realised during the year 1943-44 subscription to the extent of Rs. 1,532. The other union, though not recognised by the employers, has a large following, because it has shown some vigour in demanding an increase in dearness allowance or grant of good subsidy. In U. P., the Cawnpore Electric Supply Workers Union has a membership of about 700 and its subscription is 8 as. per annum per member. One of the power stations investigated in the Punjab belongs

to the N. W. Railway and its workers are members of the N. W. Railway Workers' Union. 93 workers of the other power station investigated in the Punjab have formed a trade union of their own. In the Bihar factory, a union had been formed on two occasions in 1937-38. On both the occasions the formation of the union coincided with considerable labour trouble in the local steel plants and the attempts proved unsuccessful mainly because of lack of interest among employees. The Secretary (a non-employee) of the second union was prosecuted and convicted by the Bihar Government for failure to submit a statement of Union accounts. The Company claims that every effort was made to work with the Union, though there had never been any agreement. The second Union, was officially recognised after it had become a registered union.

" Some of the factories are prepared to recognise workers' unions, if they fulfil and subscribe to certain conditions. Conditions about registration (under the Indian Trade Union Act, 1926), restriction of membership largely to the actual workers, audit and accounts, etc., are certainly desirable. However, a Poona factory lays down the following condition :

" The Union shall restrict its ordinary membership to active staff of the Company up to and including the rank of Supervisors. No ex-employee of the Company shall be an honorary member or office bearer of the Union ". Similarly, a Bengal factory has got the following among its conditions :—

(i) Not less than half the total number of officers of the Union shall be persons actually employed by the Company. If the Company consider that a person has been included in the Union as an honorary member who has not a *bona fide* interest in Trade Unionism and in the collaboration and promotion of good relations between the Company and their employees, and in the settlement of disputes constitutionally through the process of representation, mediation and conciliation, the Union may be required to satisfy the Company as regards the *bona fides* of such person.

(ii) Recognition will not be granted unless the Company have been given facilities to check the membership and to see that the Books and Accounts are in order and the Company have satisfied themselves that the funds of the Union are sufficient to provide a living wage for all employees for one month in the event of strike.

Works Committee.—Works Committees were found only in two factories a power station in Bengal and an electrical workshop in Bihar. The Bengal factory has a Welfare Committee, while the Works Committee of the Bihar factory comprises the Assistant Works Manager and three representatives of workers chosen by the Union. The Workers' representatives submit any subjects for discussion and meetings are called at their request. There have, however, been no meetings for about 4 years. One of the power stations, investigated in the Punjab, is allied with the railway workshops, who have their workshop committees.

Strikes.—There have been no strikes in the concerns investigated in Madras and U. P. In Bombay, the B. E. S. T. workshops experienced some unrest during the period between 21st September 1931 and 1st April 1932. The workers resorted to picketting on a notice by the Company that the workshops would be closed on every Monday. Consequent upon the picketting, a lock-out was declared from 29th September to 21st October. Full working was resumed from 1st April 1932. Except for this strike, there was no industrial dispute in the factories investigated in the Bombay Province. Workers in two concerns, however, gave notices of strike in war time, and

demanded increase in wages. In both cases, the Provincial Government intervened and mediated. In one of the two concerns a Heavy Duty Allowance at the rate of 4 as. per day for workers, engaged on arduous and continuous work, was sanctioned. In Bengal, five out of the fifteen factories investigated experienced seven strikes in war time. Two of them occurred in 1939, two in 1941 and three in 1943. Of these strikes, two were successful, three unsuccessful and two ended in compromise. The duration was from one day to 21 days, but most of them lasted for less than a week. The main cause of all the strikes was a demand for wage increase. In the Punjab, one of the two factories investigated experienced a strike in 1937, when the workers demanded pay for Sunday, the 23rd May instead of accepting holiday on the next day, as declared by the Railway Administration. In the other factory in the Punjab, a strike for increase in the rates of dearness allowance was contemplated in 1941, but it did not materialise. In the Bihar factory, a strike of 7 months duration (from May to December) was launched in 1938, the occasion synchronising with the general industrial unrest in the Province at the time. The workers resumed work on the understanding that their grievances would be the subject of discussions.

VII.—General.

Accidents.—It has been claimed by the employers that in view of the nature of industry which calls for precision work, the chances of serious accidents are rare. However, in actuality accidents have occurred and some of them were fatal, caused by electric shock and falling in molten lead. The following figures show the extent of accidents in 1943, in some of the concerns investigated.

TABLE 129.

Accidents in 1943.

Province	Concern	Total Number of accidents	No. of accidents compensated	Amount of Compensation Rs.
Madras	I	1	1	1,050
	II	2	2	96
	III	2	2	11
Bombay	I	27	..	..
	II	7	7	72
	III	33	21	173
	IV	1	1	2,100
	V	8	4	103
	VI	12	12	97
	VII	59	59	1,116
	VIII	2	..	..
	IX	17	..	..
	X	3	..	..
Bengal	I	5	5	242
	II	4	4	71
	III	44	4	..
	IV	137	137	3,585
	V	34	1	50
	VI	22	20	188
U. P.	I	227	38	641
Punjab	I	68	..	..
	II	103	..	..
Bihar	I	32	29	283

It was found that many of the factories pay more as compensation than what is legally due to the injured worker ; small injuries, for which less than seven days are lost, are also paid. For example, in the above table two Bombay factories have paid Rs. 97 and Rs. 1,116 as compensation in 1943 ; the obligatory compensation in these cases, amounted only to Rs. 20 and Rs. 476 respectively. On the other hand, there were cases in which the workers could not get adequate compensation. It has been alleged by workers in one of the Madras factories that in one case of electric shock, compensation was not paid because it could not be proved that the death was due to electric shock. A few factories insure their liability to pay compensation.

Indebtedness.—32 factories have made some provision to grant loans to their workers. The following table gives details in this regard.

TABLE 130.

Methods of granting Loans.

Province	No. of concerns investigated	No. of concerns giving loans through—			
		Co-operative Societies	Welfare Fund	Provident Fund	Advances
Madras	4	3	..	..	..
Bombay ..	20	7	7	1	1
Bengal	15	1	2	1	6
U. P.	1	1	..	..	..
Punjab	2	..	..	1	..
Bihar	1	1	..	..	..
Total ..	43	13	9	3	7

The above classification is not perfect, mainly because many of the factories utilise more than one method. The seven B. E. S. T. factories grant interest-free loans like the Evacuation Loan or loans from the Employees' Welfare Fund. Loans can also be had from the Provident Fund Account and from the Co-operative Credit Society, where the rates of interest are 6 per cent. and 9⅜ per cent. per annum, respectively. Similarly in the Punjab factory, workers having more than three years' service, who do not subscribe to the Provident Fund, can obtain loans up to a maximum of four months' pay from the Lower Paid Staff Loan Fund.

Of the thirteen factories, which have Co-operative Credit Societies, six are the Tata Generating and Receiving Stations. The rate of interest is 1¼ pies per rupee per month or 7-13|16 per cent. per annum. The rate in the remaining Society as well as in three societies in the Madras factories is 6¼ per cent. per annum. The Co-operative Credit Society in a Calcutta power station, whose rate of interest is the same, had, at the close of the year 1944, 813 workmen indebted to it and the amount they owed to the Society was Rs. 1,12,718-8-0. Another rich society is the one in the U. P. factory. The

number of members on 30th June 1944 was 859 and the total amount of loan taken by the members in the year ending that date was Rs. 84,167. The interest charged is one pie per rupee per month. The rate of interest charged by the Society of the Bihar factory is 9.375 per cent. per annum. Advances are generally short-term loans, not exceeding, usually, the amount of one month's pay and are interest-free. However, a few companies grant long-term advances (with interest ranging between 4 to 6¼ per cent. per annum) and the amount is recovered by monthly instalments, which are usually deductions of small amounts from monthly wages. Loans from Provident Fund are also granted with or without interest.

Provident Fund.—Twenty-nine factories (Madras 2 ; Bombay, 17 ; Bengal, 6 ; U. P., 1 ; Punjab, 2 and Bihar 1), out of which 19 are power stations, have Provident Fund benefits for their workers. The Tata Power Consolidated Fund is common to the six factories investigated in Bombay. Similarly, the B. E. S. T. Provident Fund Institution covers a number of factories, of which seven were investigated. The Provident Fund Rules of most of the companies are broadly similar though differing in details. These details are considered below :

(i) Only four schemes are compulsory, the rest being voluntary. One of the schemes is compulsory only for workers getting Rs. 50 per month or more. For those getting between Rs. 20 and Rs. 49 p. m., it is voluntary ; another scheme is compulsory for those getting over Rs. 60 p. m. and optional for permanent workers getting less than Rs. 60.

(ii) *Membership.*—Some conditions such as permanency of service, minimum income limit, period of service, etc., are attached to membership. Sometimes, there are several other conditions. For example, in the Bihar factory " all permanent employees aged eighteen years and who at such time are in receipt of a salary or wage paid monthly amounting to not less than Rs. 13 shall be eligible to join the Fund....." Only three out of the 29 factories surveyed, place no conditions for eligibility on membership and allow any employee to join the Fund. All others require a worker to be permanent and some of them restrict the membership only to monthly-rated workers. Twelve factories, of which seven belong to the BEST Company, and one to N. W. Railway, require a worker to put in continuous service for a minimum specified period to be eligible for membership. This period is one year in ten factories and three years in the remaining two. Fifteen factories have placed a minimum income limit, which ranges from Rs. 13 p. m. (in the Bihar factory) to Rs. 60 p. m. (in a Bombay factory). Of these, ten factories (seven BEST factories, one more of Bombay and one each in Bengal and Punjab) put the limit at Rs. 15 p. m., whereas another Bombay factory has put it at 12 as. per day. The U. P. factory's limit is Rs. 25 p. m. In most of these cases, however, the Management reserve the right of admission to the Fund.

(iii) *Contribution.*—The member's contribution to the Fund varies from 3⅛ per cent. to 8⅓ per cent. of his monthly salary. The most common percentages, however, are 6¼ per cent. (in 5 factories) and 8⅓ per cent. (in 18 factories including 6 of Tatas and seven of BEST), i.e., one anna and 1-1|3 anna in a rupee respectively. In the BEST factories, however, the rate of 16 pies in a rupee is for those receiving Rs. 100 per month or more while for a member receiving less than Rs. 100, the rate is 12 pies, or at his option (to be signified in writing) 16 pies. Members engaged after 1st January 1926 on consolidated flat rates of wages are to contribute at the rate of 9 pies or at their option (to be signed in writing) 12 pies in the rupee. Similarly, in a Bengal power station the rate of subscription is 6¼ per cent. for those who became members of the Fund prior to 1930 and 5 per cent. per

annum for those who became members after that date. In the Punjab power station, 8⅓ per cent. is the rate for monthly-rated workers. For daily-rated workers, it is equal to 2 days' wages. The lowest rate of subscription is in two Bengal power stations, where it is at the rate of six pies in the rupee of the salary subject to a maximum contribution of Rs. 9-6-0. One of the Madras factory's provident fund is arranged by a system of insurance with an Insurance Company and contributions are according to the salary of the employees, ranging from Re. 1 per month for those getting below Rs. 30, to Rs. 13 per month for those getting Rs. 300 and over, divided into grades.

In all the above cases, except four, the employer's contribution is equal to the aggregate contributions made by the members. In two cases, the employer's contribution is half of that of the workers. In the remaining two cases, it is not less than half the aggregate amount of the subscriptions of the members, but not exceeding such aggregate.

(iv) *Investment and Interest.*—All the amounts thus contributed are invested by the Trustees in securities, authorised under the provisions of the Indian Companies Act and the Income-Tax Act and the interest realised every year from these investments is credited to the members' individual accounts on a *pro rata* basis. Only three factories have specifically mentioned the rate of interest, which is 3 per cent. in two cases and 2½ per cent. in one.

(v) *Conditions of Claims.*—The worker is not entitled to employer's contribution on his voluntary retirement or dismissal before completion of a specified period of approved service. This period varies from 3 to 30 years; it is 3 years in one concern, 7 years in another, 10 in 2 concerns, 15 in 5 concerns, 20 in 2 concerns, and 30 in 1 concern. In at least seven cases, the worker is entitled after a minimum period of service to a proportion of the employer's contribution, even if he voluntarily leaves or is dismissed before the specified period mentioned above. The details are as follows :—

TABLE 131.

Claim to Employer's Contribution (and interest thereon).

Years of approved service	Proportion of Employer's Contribution with Interest thereon due in—						
	Madras	Bombay I	BEST	Bengal I	Bengal II	U.P.	Bihar
3 ..	..	..	..	a	..	..	..
4 ..	a	..	a	40%	..	a	..
5 ..	50%	..	33⅓%	50%	..	..	a
6 ..	50%	..	33⅓%	60%	..	..	35%
7 ..	50%	..	33⅓%	70%	..	..	40%
8 ..	50%	..	33⅓%	80%	..	..	45%
9 ..	50%	a	33⅓%	90%	a	..	50%
10 ..	b	50%	66-2/3%	b	40%	..	..
11 ..	..	60%	66-2/3%	..	40%	*	Like this for
12 ..	..	70%	66-2/3%	..	40%	..	each additional
13 ..	..	80%	66-2/3%	..	40%	..	year of service
14 ..	..	90%	66-2/3%	..	40%	..	5%
15 ..	..	b	b	50%	50%	..	
20 ..	..	..	..	..	70%	b	b
25 ..	..	..	..	..	85%	..	..
30 ..	..	..	..	..	b	..	..

NOTE:—(i) 'a' shows the minimum limit up to which the employer's contribution cannot be claimed.
(ii) 'b' shows the limit after which cent per cent employer's contributions can be claimed.
*In the U. P. factory the calculation is: 70-5/20 ths of the amount standing to his credit in "Proprietors' Contribution Account" there shall be added for each year of such employee's service in excess of 5 years' 1/20th of the amount so standing to his credit.

In most of the Funds, however, the workers get, in whole or in part, the employer's contribution if they retire because of causes over which they have no control (such as retrenchment, insanity, accidents, etc.). In the event of death, survivors get the benefits.

Gratuity.—Gratuity system is in existence in 15 factories (Madras 2, Bombay 8, Bengal 3, U. P. 1 and Punjab 1). In all cases the service of the worker must be approved and continuous and the gratuity is given on retirement after a specified period of service or on death. Both the Madras factories which give gratuities, have no Provident Fund. One of them pays gratuities to workers on retirement or death at the rate of 3 months' pay for every five years of service, up to a maximum of 12 months' wages or Rs. 1,000, whichever is less. The rate of the other factory is one month's wages for a service of not less than 5 years but less than 10, three months' wages for a service of 10 years or more but less than 15, and six months' wages for a service of 15 years or more.

In a Bombay factory, gratuity is given after 10 years' service or on death at the rate of one anna per rupee of monthly pay at the time of retirement, multiplied by the number of years of service. To be eligible for the gratuity in the BEST factories, a worker besides fulfilling the usual conditions, must be over 35 years of age, except in cases of death and of compulsory retirement due to disablement, ill-health or retrenchment. If he leaves his duty for the purposes of going on strike he forfeits all his claims to any gratuity on retirement. For purposes of gratuities, workers may be divided into three classes : (i) All officers and employees (excluding Traffic and Engineering staff) who joined the service prior to 12th February 1926 ; (ii) same categories of workers, who joined after 12th February 1926, and (iii) Traffic and Engineering staff (scheduled and non-scheduled employees). The scales for these categories are as follows :—

TABLE 132.

Gratuities in BEST Company, Bombay.

Years approved service.	Class I	Class II	Class III
7	..	..	..
10	1/3 of 1 month's pay for each year of service.	..	3 months' pay.
12	..	..	6 Do.
15	..	..	9 Do.
18	1/3rd of 1 month's pay for each year of service.	4 months' pay	12 months' pay
20	..	8 Do.	..
25	1 month's pay for each year of service	12 Do.	..

Only one electrical workshop and two power stations in Bengal have gratuity systems. In the electrical workshops, permanent workers on attaining the age of 65 after 20 years' service or if compelled by the Company to retire earlier but with a minimum continuous service of 5 years, are entitled to the payment of gratuity at the rate of half a month's salary or wages for every completed year of service. Workers who participate in any strike are

debarred from getting the gratuity. The following table shows the number of persons to whom gratuities have been paid :—

TABLE 133.

Gratuities Paid in an Electrical Workshop, Bengal. (Employment : 646 in 1939 and 1,118 in 1944).

Year.	No. of persons to whom paid.	Total amount paid.
		Rs. as. p.
1941	5	801 14 0
1942		562 8 0
1943	3	304 11 0
1944	1	3,602 8 0

In a Calcutta power station, the amount of gratuity paid depends upon the length of service and the rates of wages at the time of retirement ; it varies from 5 per cent. to 6¼ of wages in the case of employees retiring after 19 years of service. In another Bengal power station, gratuities are occasionally granted at the discretion of the management.

The U. P. factory, for some years past, at the discretion of management, has been paying gratuities to all employees not members of the Provident Fund, who complete 10 years' service and who leave on account of ill-health certified by the factory's medical officer. Similarly, an *ex-gratia* payment is made to the next of kin of those who die while in employment and who have completed 5 years' service and are not members of the Provident Fund. The total amount paid out as gratuities during 1942, was Rs. 10,347.

CHAPTER IV.—RAILWAY WORKSHOPS.

If the number of workers employed is taken into consideration, railway workshops, which employed about 140,000 workers in 1943, form the most important branch of the engineering industry. The employment in railway workshops forms about 27 per cent. of the total employment in engineering. As the Royal Commission on Labour (p. 136) remarked, the railway administrations are the largest employers of organised labour in India and their working policy as regards wages and other terms of employment reacts to some extent on industrial labour conditions throughout the country.

The Non-Gazetted Railway Services, of which services in the railway workshops form a part, have been the subject of an independent report by Dr. Ahmed Mukhtar, one of the Members of the Labour Investigation Committee. Railway workshops, which have been studied in this chapter, have been treated as a branch of engineering, but this study can also serve as a supplement to the Report on Non-Gazetted Railway Services. To avoid duplication, most of the facts that are common under different railway administrations have been omitted and only the important conclusions arising out of an independent investigation in 45 workshops have been discussed below.

The following table compiled from the Factory Statistics, shows that most of the railway workshops are situated in 6 Provinces.

TABLE 134.

Railway Workshops.

Province.	State-owned workshops.				Company-owned workshops.			
	No. of factories.		No. of workers.		No. of factories.		No. of workers.	
	1939	1943	1939	1943	1939	1943	1939	1943
Madras	..	..	..	..	23	23	12,313	16,622
Bombay	16	31	9,101	24,405	20	8	8,914	2,984
Bengal	16	17	15,173	23,949	12	10	11,599	9,887
U. P.	17	17	9,107	8,168	6	6	3,917	5,073
Punjab	7	17	11,402	19,781	1	2	50	124
Bihar	10	14	9,111	13,494	15	9	3,565	2,563
Other Provinces ..	8	22	1,890	12.078	12	8	7,916	2,224
Total	74	118	55,784	101,875	89	66	48,274	39,477

The total number of employees (gazetted and non-gazetted, permanent and temporary) on all railways in British India and Indian States at the end of the year 1943-44 was 8,89,056 workshop labour constituting a little more than 17 per cent. of the total.

Since the outbreak of the war, the railways had to face a great task, considered both from the variety of work as well as the degree of skill required. While selecting the samples for investigation, the diversity of nature of work was the main criterion, though other factors have not been overlooked. For example, nine workshops (3 of G. I. P. Railway and 6 of M. & S. M. Railway) not coming under the Factories Act, have been included so as to enable an enquiry into the conditions of unregulated labour. As the following statement shows a number of workshops situated in mofussil areas have also been investigated.

TABLE 135.

Workshops Investigated.

Nature of work done	Details of the concerns investigated.		
	Number	Railways *	Centres.
(i) Mechanical workshop (Loco-carriage-wagon repairs and construction).	9	One each in G.I.P., B.B. & C.I., Barsi Light, M. & S.M., B.N., E.I., Martin & Co., D.H.and N. W.	Bombay (2), Kurduwadi, Hubli Kharagpur, Lillooah, Makarda, Tindharia and Lahore.
(ii) Loco Sheds (Repairs and maintenance of engines and steam pumps).	16	G.I.P. (5), M. & S.M. (10), N. W. (1)	Kalyan, Dhond, Bhusawal, Nandgaon, Igatpuri, Hubli, Alanawar, Karajgi, Dharwar, Gadag, Hospet, Telgi, Hotgi, Ghorpuri, Madras and Lahore.
(iii) Mechanical & Structural Engineering (small repair workshops).	8	G.I.P. (4), B. B. & C. I. (2) and M. & S.M. (2).	Bombay (2), Manmad, Poona, Dhond, Sholapur, Hubli and Madras.
(iv) Electrical Workshops (including generators, Charging batteries, overhauling dynamos, etc.)	6	B.B. & C.I. (3) and M. & S. M. (3).	Hubli (3), Bombay, Dohad and Ajmer.
(v) Telegraph workshop	1	G.I.P.	Bombay.
(vi) Maintenance of Buildings	1	G.I.P.	Bhusawal.
(vii) Repairs to A.V.B. cylinders.	2	G.I.P. (2)	Igatpuri and Poona.
(viii) Small Carriage Repair Workshops.	2	G.I.P. (2)	Bombay and Kurla.

*The Railways investigated are G.I.P. Rly., B.B. & C.I. Rly., Barsi Light Rly., M. & S. M. Rly., B.N. Rly., Martin & Co.'s Rly., D. H. Rly., & N.W. Rly.,

I.—Employment.

The following table, compiled from the Factory Statistics, shows the expansion in the number both of workshops and of workers employed during 1939-43.

TABLE 136.

Factories and Employment in War time.

Year.	State owned workshops.		Company-owned workshops.		Total.	
	Factories.	Workers.	Factories.	Workers.	Factories.	Workers.
1939	74	55,784	89	48,274	163	1,04,058
1940	87	61,454	91	49,323	178	1,10,777
1941	89	69,098	91	51,730	180	1,10,828
1942	109	89,818	73	41,255	182	1,31,073
1943	118	1,01,875	66	39,477	184	1,41,352

The decline in the figures of company-owned workshops is due to the fact that some of the company-owned railways were taken over by the State. It may be said, however, that compared to other branches of engineering, the number of railway workshops has not increased much, though considerable incrase is seen in the number of workers employed.

TABLE 137.

Number of Workers Employed.

Railways	August 1939			A month in 1944-45			Percentage
	Work-shops.	Workers	Workers per workshop	Work-shops.	Workers	Workers per workshop	increase or decrease.
G.I.P.	13	5,588	430	16	13,124	820	90%
B. B. & C. I.	6	3,299	550	6	4,015	669	22%
M. & S. M.	15	7,715	514	16	9,903	619	20%
Barsi Light	1	234	234	1	210	210	10%
B.N.	1	8,633	8,633	1	8,875	8,875	3%
E.I.	1	5,948	5,948	1	7,076	7,076	19%
Martin & Co.	1	129	129	1	141	141	9%
D. H.	1	316	316	1	370	370	17%
N.W.	2	9,826	4,913	2	12,122	6,061	23%
Total	41	41,688	1,017	45	55,836	1,241	22%

The increase in employment is mainly due to greater pressure of work like servicing, running locomotives and repairing carriages and wagons in war-time. Except two workshops in Bengal (B. N. Railway's at Kharagpur and Martin & Co.'s at Makarda), all other workshops pay their workers at time rates. The number of piece-rated workers in the above-mentioned two workshops was 1,693 in August 1939 and 4,471 in January 1944, showing a percentage increase of 164.09. In these two Workshops, contract labour also is employed and its extent is given below.

TABLE 138.

Contract Labour (in two Bengal Workshops).

	Aug. 1939.	Jan. 1944.
Men	52	1,398
Women	..	1,044
Total ..	52	2,442

Contract labour is also employed in varying numbers by the M. & S. M. Railway for the stacking of coal and for the removal of ashes but no exact data are available. Only 4 factories employ female labour. No children are employed. Women are employed as sweepers and coolies and the extent of their employment is shown in the table below.

TABLE 139.

Female Labour.

Railway Workshop		Total No. of workers.		No. of female workers.	
		1939	1944	1939	1944
G. I. P.	I	232	293	1	1
	II	47	48	5	5
	III	67	98	8	16
B. N.	I	8,633	8,875	351	410

Length of Service—The length of service of workers in some of the concerns investigated is given below :—

TABLE 140.

Length of Service.

Railway.	N. of concerns.		Workers who have served for			
			Less than one year.	1 to 5 years.	5 to 10 years.	Over 10 years.
G. I. P.	11	Workers	1,057	2,920	531	2,943
		% age	14%	39%	7%	40%
B.B. & C. I.	6	Workers	365	1,332	451	1,905
		% age	9%	33%	11%	47%
M. & S. M.	14	Workers	241	352	189	548
		% age	18%	27%	14%	41%
Barsi Light	1	Workers	53	62	18	161
		% age	18%	21%	6%	55%
E. I.	1	Workers	906	1,595	818	3,666
		% age	13%	23%	12%	52%
N. W.	3*	Workers	1,279	6,070	2,119	6,027
		% age	8%	39%	14%	39%
Total	36	Workers	3,901	12,331	4,126	15,253
		%age	11%	35%	11%	43%

* The third concern in Punjab is a Power House of the N. W. Railway. This concern has already been included under electrical engineering. The Management have supplied combined figures for all the three concerns.

Permanent and Temporary Workers.—The policy of the railways is to treat all new employees recruited in war time as temporary for the duration of war. Temporary workers may be confirmed only when permanent vacancies arise and their former service is taken into account if it has been continuous. The following table gives the percentage of permanent workers in a number of concerns investigated.

TABLE 141.

Percentage of Permanent Workers.

Railway	Concern	Percentage of Permanent Workers.			
		Percentage of permanent workers to total.	Railway.	Concern.	Percentage of permanent workers to total.
G. I. P.	I	85·0%	D. H.	I	51·0%
	II	47·9%	M. & S. M.	I	97·1%
	III	57·9%		II	92·9%
	IV	14·4%		III	73·3%
	V	40·2%		IV	74·0%
	VI	38·0%		V	84·0%
	VII	26·7%		VI	100·0%
	VIII	34·0%		VII	100·0%
	IX	68·4%		VIII	100·0%
	X	68·8%		IX	92·5%
	XI	85·1%		X	95·5%
	XII	62·1%		XI	100·0%
B. B. & C. I.	I	32·5%		XII	76·0%
	II	65·4%		XIII	70·0%
	III	67·1%		XIV	100·0%
Barsi Light	I	17·6%	M. & S. M.	XV	90·0%
E.I.	I	74·0%		XVI	60·0%
Martin & Co.	I	67·0%			

The railway staff are governed by different sets of rules. In the G. I. P. for example, they are governed by three different sets of rules according to their date of appointment : (i) G. I. P. Railway Rules for staff engaged prior to 1st July 1925 ; (ii) Fundamental Rules for those engaged from 1st July 1925 to 31st August 1925 ; and (iii) State Railway Rules for those engaged on and from 1st September 1925.

Apprenticeship.—The system of training apprentices exists in almost all the railways. In the Transportation Workshop of the G. I. P. Railway in Bombay, there are two classes of apprentices (a) Apprentice Telegraph Workmen, and (b) Apprentice Telegraph Maintainers. The period of apprenticeship in each case is 4 years. On successful completion of the period, the former are appointed as workmen in the workshop, whereas the latter are appointed as Telegraph Maintainers to work in Districts. In G. I. P. Railway's Chief Mechanical Engineer's Workshop, apprenticeship is confined to the provision of personnel for (a) Supervisory posts for which "Apprentice Mechanics" are trained ; and (b) Artisan posts for which "Trade Apprentices" are trained. "Mechanical Apprentices" are recruited by the Chief Mechanical Engineer, and are sent to workshops, such as the Loco Shed, Dhond, for practical training.

Three of the M. & S. M. Railway workshops have apprentice-system. The Train Lighting Workshop of Hubli has 'B' and 'C' class apprentices, which are trained for ordinary artisan posts only. The normal period of training for both the classes of apprentices is 5 years. The other two M. & S. M. workshops are in Madras. One of them takes fitter apprentices, boiler apprentices, and firemen apprentices, who are all selected by a Staff Selection Board and are trained for a period of three years in the workshops and two years in the running shed. These apprentices are taken on Rs. 21 or Rs. 27 as starting pay and go up to Rs. 30 by annual increments of Rs. 1-8-0. In the other Madras concern, four classes of apprentices, two for Supervisory posts and two for ordinary posts are taken.

Four of the six B. B. & C. I. workshops have the apprenticeship system. One of them, the Signal Reconditioning Workshop in Bombay has at present two Apprentice Signal Inspectors, being trained for supervisory posts. In the three other workshops (Electrical Workshop in Bombay, Dohad and Ajmer), apprentices are trained for supervisory posts of Electrical Chargemen. The apprenticeship period is 5 years.

Kharagpur Workshop of the B. N. Railway has grade I apprenticeship for supervisory staff and grade II apprenticeship for skilled and semi-skilled artisans for workshop. The apprenticeship period for both the grades is five years. For Grade I, 60 candidates are taken every year and are paid from Rs. 33 to Rs. 65 per month during the five years' period. After completion of the full term of apprenticeship of 5 years and thereafter two years of improvership, trained men are eligible for promotion as vacancies occur, to the grades of charge heads, Inspectors, Supervisory Fitters, Boiler makers, Draughtsmen, Assistant Foremen or Foremen. Recruitment to grade II is made by the Superintendent, Mechanical Workshop and during the period of apprenticeship the following stipends are granted : 1st year, Rs. 11 p. m., 2nd year, Rs. 12 p. m., 3rd year, Rs. 14 p. m., 4th year Rs. 17 p. m. and 5th year Rs. 20 p. m. These apprentices receive practical training in the workshop and theoretical training in the B. N. Railway Grade II Apprentices' Technical School. On successful completion of the apprenticeship period, grade I and grade II apprentices get a good conduct bonus of Rs. 100 and Rs. 15 respectively.

The period of apprenticeship at Lilooah workshop (E. I. Railway) is 5 years, both for supervisory and skilled workmen's posts. In the former case, practical training was in the workshop and theoretical training in the Jamalpur Technical School. During the training, apprentices live in hostels provided by the railway and a boarding allowance of Rs. 55 p. m. is granted to them. In addition to this a stipend of Rs. 10 in the first year is given and this is increased by Rs. 5 every year up to the 5th year, when they are appointed as T. T. Chargemen. For skilled workmen's post, apprentices are trained for 5 years and a stipend starting from Rs. 8 and rising by Re. 1 every year up to Rs. 12 is given. In the Martin & Co.'s workshop (Makarda) supervisors have to undergo 5 years' mechanical apprenticeship ; for ordinary posts the period varies from post to post. In the N. W. R. workshops, there are two classes of apprentices : Trade apprentices and Apprentice Mechanics. The first are daily-rated whereas the second are monthly-rated. The period of apprenticeship is 5 years for both and the stipends are as follows :

TABLE 142.

Stipends to Apprentices in N. W. Railway Workshops.

Year.	For Trade Apprentices.	For Apprentice Mechanics.
	Rs. a. p.	Rs. a. p.
1st	0 4 6 per day.	10 0 0 per month
2nd	0 7 0 „	15 0 0 „
3rd	0 9 6 „	20 0 0 „
4th	0 11 6 „	25 0 0 „
5th	0 13 6 „	30 0 0 „

Apprentice Mechanics are given training in the Punjab College of Engineering and Technology and in the workshops. On completion of their service, they are retained as journeymen (Grade Rs. 65—5|2—85).

In most of the cases the apprenticeship period, if continuous, is counted towards total service, though retention in service after completion of the course is not guaranteed.

Labour Turnover and Absenteeism.—The figures of labour turnover and of absenteeism of a number of concerns are given below :

TABLE 143.

Labour Turnover.

Railway.	Period.	No. of workers employed.	No. of workers who left during the period.				Percentage of labour turnover.	Percentage of absenteeism.
			Retired	Dismissed	Voluntarily left	Total.		
G. I. P. I	1939	213	2	1	10	13	6·1%	..
	1943	268	4	7	3	14	5·3%	3·4%
II	1939	2982	@	@	@	264	8·8%	8·1%
	1943	5083	@	@	@	398	7·8%	18·5%
III	1939	191	4	..	..	4	3·1%	..
	1943	331	8	..	2*	10	3·3%	0·2%
IV	1939	647	..	3	..	3	0·4%	0·1%
	1943	1472	..	4	..	4	0·2%	8·2%
V	1943	343	2	..	..	2	0·6%	..

TABLE 143—*concld.*

Railway.	Period	No. of workers employed	No. of workers who left during the period.				Percentage of labour turnover.	Percentage of absenteism
			Retired	Dismissed	Vol. left.	Total.		
VI	1939	88	..	2	1	3	3·4%	0 9.0%
	1943	86	11	12	..	13	15·1%	15.8%
VII	1939	47	1	..	..	1	2·1%	0.5%
	1945	77	2	..	..	2	2·5%	0.3%
VIII	1939	67	1	..	..	1	1·4%	0 8%
	1943	128	1	..	..	1	0·8%	0.2%
IX	1939	279	..	1	5**	6	2·2%	2 3%
	1943	343	3	8	3x	14	4·6%	4 5%
X	1939	64	..	..	1	1	1·6%	
	1943	92	1	1	..	2	1·1%	..
XI	1939	598	3	24	..	27	4·5%	..
	1943	616	13	26	..	39	6·5%	..
I. B.& C. I.	1943	3827	2	14	2	18	0·5%	0·7%
II	1939	51	..	3	1	4	8·0%	..
	1943	71	..	5	2	7	9·9%	..
III	1939	150	..	2	..	2	1·3%	..
	1943	179	1	1	1	3	1·7%	..
Barsi Light	1939	240	..	2	1	3	1·3%	..
	1943	310	..	3	4	7	2·3%	..
M. & S. M. I	1939	70	..	..	1	1	1·4%	1·8%
	1943	70	1	1	2	3	4·2%	1·5%
II	1939	13	..	..	..	1	7·6%	..
III	1943	13	..	1	..	1	7·6%	1·0%
IV	1943	381	8	9	..	17	4·4%	..
V	1943	7	2	..	..	2	28·5%	..
VI	1939	325	@	@	@	15	4·6%	..
	1943	400	@	@	@	16	4·0%	4·7%
VII	1939	4,844	@	@	@	132	2·7%	
	1944	6,096	@	@	@	244	4·0%	9·8%
E.I.R. I	1939	5,414	60	..	203	263	4·9%	11·0%
	1944	600,0	104	8	418	530	8·8%	12·7%
Martin I	1939	129	..	51	1	52	4·0	..
	1944	141	1	25	8	34	2·%	..
M. W. I	1944	6,944	74	5	737	816	11·8%	..

@ Figures not available.
* Both these persons were declared medically unfit.
** Four of these five persons were declared medically unfit for all classes.
x These three persons died.

Recruitment and Labour Officers.—In the case of inferior staff, such as coolies, sweepers, etc., recruitment is direct, while for skilled jobs, suitable persons are generally selected from among the lower grades and from apprentices. In many cases a Selection Board nominated by the Chief Mechanical Engineer selects the candidates for technical jobs. Preference is given to sons of railway employees. Labour Officers are rare in the railway workshops. B. N. Railway's workshop maintains a wholetime Welfare Officer, assisted by competent staff. In other workshops, the grievances of workers are looked after by the Works Manager, Staff Warden, Personnel or Employment Officer, Foreman, or any other officer in charge of the workshop. Many workshops have Works Committees, which discuss problems concerning the staff. Besides, workers have the right of appeal to the higher authorities.

II.—Wages and Earnings.

All the railway administrations have fixed definite grades for different categories of workers, both skilled and unskilled. These grades are fixed in some cases by taking into consideration the cost of living in the particular locality. In the B. B. & C. I. Rly., for example, an ordinary carpenter gets Rs. 1-8-0 per day in Dohad or Ajmer, while he gets Rs. 1-14-0 in Bombay. The skilled and unskilled workers are divided and sub-divided into a number of categories and in some cases the sub-division is carried on to such an extent that the workers think it to be an ingenious device adopted by the authorities to keep the workers always at a low level of wages. For example in a M. & S. M. Rly. workshop, the Train Lighting Fitters are sub-divided into seven classes, with daily wage-rates ranging from 14 as. to Rs. 3-12-0 per day. In G. I P. Rly. some of the categories have been sub-divided into 'special', 'superior' and 'ordinary' grades with two scales of payment, Old and New or Revised. Similarly in B. B. & C. I. Rly., the workers under the old scale have been divided into 'ordinary', 'superior' and 'special' grades, but those under the new scale are called 'Assistant', 'Ordinary' and 'Superior'. Only a certain fixed proportion of workers in each category is entitled to get upper grade maximum pay. For example, only 25 per cent. of wagon carpenters can go up to Rs. 2-11-0 which is the maximum pay given to 'Special' grade wagon carpenters. These conditions can be seen in the following table of B. B. & C. I. Rly. wage-rates.

TABLE 144.

Wage-rates in B. B. & C. I. Workshop (Parel).

Designation.	Old Scale.						Revised Scale.						Remarks.
	Ordinary.		Superior.		Special.		Assistant (30%)		Ordinary 50%		Superior (20%)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Acetylene welders ..	..	..	2 11	3 9	4 1	4 5*	1 1	1 7	1 10	2 6	2 9	3 5a	a=50 % * 10% only in special grade.
Blacksmiths ..	1 8	2 9	2 15	3 9	4 1	4 5*	1 1	1 7	1 10	6	2 9	2 14	
Carpenters, Wagon ..	1 5	2 4	2 8	2 11b	..	..	..	..	1 0	1 8	..	..	b=25% of wagon carpenters. can go up to Rs. 2 11.
Carpenters, carriage ..	1 7	2 11	3 1	3 5	3 13	4 5*	1 1	1 7	1 10	2 0	2 3	2 9	
Crane drivers ..	..	..	1 8	2 9	..	..	..	..	1 2	1 6	1 8	1 14	
Electric Welders ..	..	..	1 8	2 4	2 9	3 12c	1 1	1 7	1 10	2 6	2 9	3 5	c=50 %
Fitters C & W ..	1 7	2 11	3 1	3 5	3 13	4 5*	1 7	1 7	1 10	2 6	2 9	2 14	
Fitters Loco ..	..	..	2 9	3 5	3 13	4 5*	..	..	..	..	..	..	
Moulders ..	1 5	2 4	2 9	3 5	3 13	4 5*	..	..	..	..	..	..	
Machineman ..	1 9	2 10	..	..	..	..	..	..	1 4	2 10	2 3	2 9	
Painters& Polishers ..	1 9	2 10	3 0	3 5	..	..	1 1	1 7	1 10	1 14	2 0	2 9	
Spring makers ..	1 8	2 9	2 15	3 9	4 1	4 5*	1 1	1 7	1 10	2 6	2 9	2 14	
Tin smiths ..	2 9	2 15	..	..	..	..	1 1	1 7	1 10	2 6	2 9	2 14	
Turners ..	1 9	2 10	3 0	3 5	3 13	4 5*	1 1	1 7	1 10	2 6	2 9	2 14	
Trimmers ..	1 9	2 10	3 0	3 5d	3 13	4 5d	1 1	1 7	1 10	2 0	2 3	2 9	d=Only 4 can go up to Rs. 3/5/- and 3 can go up to Rs. 4-5.
Drillers ..	1 4	1 14	..	..	..	..	..	..	1 2	1 8	..	..	
Firemen ..	1 0	1 5	..	..	..	..	..	..	0 12	1 0	..	..	
Cleaners ..	0 14	1 2	..	..	1 3	1 5e	..	..	0 12	1 0	..	..	c=25% can go to spl.
Coolies ..	0 12	1 0	..	..	1 1	1 2e	..	..	0 12	0 14	0 14	0 15	
Helpers ..	0 14	1 2	..	..	1 3	1 5	..	..	0 14	1 0	..	..	
Oilers ..	0 14	1 2	..	..	1 3	1 5e	..	..	0 14	1 0	..	..	

The wage-rates in three other workshops of the B. B. & C. I. Railway are given below :—

TABLE 145.

Wage-rates in B. B. & C. I. Railway's Workshops.

Occupation		Workshop I				Workshop II				Workshop III			
		Old Scale.		New Scale.		Old Scale.		New Scale.		Old Scale.		New Scale.	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	*	Rs. p. m.	Rs. p. m.	Rs. p. m.	Rs. p. m.	Rs. p. d.	Rs. p. d.	Rs. p. d.	Rs. p. d.	Rs. p. d.	Rs. p. d.	Rs. p. d.	Rs. p. d.
Fitter	Sp.	80 0	105 0	60 0	75 0	3 13	4 5	2 9	2 14	..	..	..	..
	Su.	65 0	80 0	45 0	60 0	3 1	3 5	1 10	2 6	..	..	..	..
	Or.	45 0	65 0	30 0	45 0	1 7	2 11	1 1	1 7	..	..	..	..
Turner	Sp.	..	..	..	..	3 13	4 5	2 9	2 14	2 8	3 1	1 12	2 6
	Su.	..	..	..	..	3 0	3 6	1 10	2 6	..	..	..	..
	Or.	..	..	..	..	1 9	2 10	1 1	1 7	1 4	2 8	1 2	1 12
M/c man	Su.	..	..	..	..	..	..	2 3	2 9	..	..	..	..
	Or.	..	..	..	..	1 3	1 14	1 0	1 8	..	..	..	..
Carpenter	Sp.	80 0	105 0	60 0	75 0	3 13	4 5	2 3	2 9	2 8	3 0	2 0	2 9
	Su.	65 0	80 0	45 0	60 0	3 1	3 5	1 10	2 0	..	..	..	..
	Or.	45 0	65 0	30 0	45 0	1 7	2 11	1 1	1 7	1 8	2 4	1 2	1 4
Painter	Su.	65 0	80 0	..	..	3 0	3 5	1 10	1 14	..	..	..	..
	Or.	40 0	60 0	25 0	40 0	1 9	2 10	1 1	1 7	..	..	..	..
Blacksmith	Su.	80 0	105 0	60 0	75 0	2 15	3 9	2 3	2 9	..	..	..	..
	Or.	45 0	65 0	30 0	45 0	1 8	2 9	1 10	2 0	..	..	..	..
Tinsmith	Su.	65 0	80 0	..	..	..	..	..	..	..	..	..	..
	Or.	40 0	60 0	25 0	40 0	2 9	2 15	1 1	1 7	0 8	2 0	0 12	1 10
Coolie		24 0	..	22 0	..	0 12	1 0	0 12	0 14	..	..	..	..

* Sp., Su., and Or. mean 'Special' 'Superior' and 'Ordinary' classes respectively in which the workers have been divided. In many cases, each class is divided into two categories, 'A' and 'B' with varying grades. Only the lowest category is mentioned above.

The categories, special, superior and ordinary are found in the railway workshops of the G. I. P. Railway also. The following table, compiled from the figures of six workshops, gives the wage-rates in this railway.

TABLE 146.

Wage-rates in G. I. P. Railway Workshops (based on figures of 6 workshops).

Occupation. class.		Old Scale.		New Scale.	
		Minimum.	Maximum.	Minimum.	Maximum.
		Rs. p. m.	Rs. p. m.	Rs. p. m.	Rs. p. m.
Instrument Fitter ..	Special	90 0	100 0	75 0	85 0
	Superior	70 0	86 0	66 0	75 0
	Ordinary	45 0	65 0	40 0	62 0
Fitter ..	Special	50 0	100 0	45 0	85 0
	Superior	35 0	86 0	40 0	75 0
	Ordinary	26 0	65 0	26 0	62 0
Turner ..	Special	90 0	100 0	75 0	85 0
	Superior	48 0	86 0	45 0	75 0
	Ordinary	35 0	74 0	26 0	62 0
Machineman ..	Superior	35 0	86 0	30 0	75 0
	Ordinary	35 0	60 0	26 0	62 0
Carpenter ..	Special	90 0	100 0	75 0	85 0
	Superior	39 0	86 0	43 0	75 0
	Ordinary	26 0	60 0	30 0	62 0
Blacksmith ..	Ordinary	32 0	60 0	26 0	62 0
Tinsmith ..	Superior	61 0	74 0	55 0	66 0
	Ordinary	37 0	60 0	30 0	52 0
Coolie { male ..		14 0	26 0	13 0	24 0
Coolie { female ..		12 0	18 0	12 0	16 0

In the above table, the higher wage rates are generally for the railway workshops in the City of Bombay, while the lower ones are for the mofussil workshops such as those in Dhond or Manmad.

Wage rates in M. & S. M. workshops (in Bombay and Madras Provinces) are given below :

TABLE 147.

Wage-rates in M. & S. M. Railway Workshops.

Occupation	Bombay Workshops		Madras Workshops			
	Old Scale (Grade)	New Scale (Grade)	Minimum Rs. p. m.	Maximum Rs. p. m.	Minimum Rs. p. d.	Maximum Rs. p. d.
Train Lighting Fitters.	(a) 0/14—0/1—1/	0/11—0/1—0/13	..	..	1 0 0	1 4 0
	(b) 1/1—0/1—1/4	0/13—0/1—1/2	..	..	1 4 0	1 12 0
	(c) 1/4—0/2—1/12	1/4—0/1—1/8	..	..	1 14 0	2 4 0
	(d) 1/14—0/3—2/4	1/10—0/1—2/2	..	..	2 7 0	2 13 0
	(e) 2/7—0/3—2/13					
	(f) 3/—0/4—3/8	2/4—0/2—2/14	..	..	3 0 0	3 8 0
	(g) 3/12—0/4—4/4	2/15—0/2—3/8	..	..	3 12 0	4 4 0
Mechanical fitters ..	(a) 1/4—0/2—1/12	1/4—0/1—1/8	21 0 0	30 0 0	..	..
	(b) 1/14—0/3—2/4	1/10—0/1—2/2	110 0 0	150 0 0	..	..
	(c) 3/—0/4—3/8	57/8—2/8—75 p.m.	..	..	..	..
Electric fitters ..	(a) 1/1—0/1—1/4	0/13—0/1—1/2	..	..	..	..
	(b) 1/4—0/2—1/12	1/4—0/1—1/8	..	..	..	..
	(c) 1/14—0/3—2/4	1/10—0/1—2/2	..	..	..	..
	(d) 3/—0/4—3/8	2/4—0/2—2/4	..	..	..	..
Blacksmiths ..	..	..	21 0 0	30 0 0	(a)1 4 0	1 12 0
					(b)1 14 0	2 4 0
Carpenter ..	..	..	22 0 0	50 0 0	1 0 0	1 4 0
Hammermen ..	..	..	14 0 0	21 0 0	0 14 0	0 15 0
Machinemen ..	1/14—0/3—2/4	1/10—0/1—2/2	..	..	1 4 0	2 4 0
Coolies (spl.) .	0/14—0/1—1/	0/11—0/1—0/13	..	..	..	..
Coolies	0/10—0/1—0/13	0/8—0/1—0/10 p.d.	13 0 0	18 0 0	0 11 0	0 15 0
		13/—0/8—16/ p.m.	..	..	..	..

Unskilled workers like coolies in all the occupations get a monthly salary of Rs. 13 to Rs. 18 or a daily wage of 8 as. to 15 as. Semi-skilled categories get Re. 1 to Rs. 3-8-0 per day according to the grade in which they are placed. Especially capable workers get Rs. 3-12-0 to Rs. 5-4-0 a day. The daily-rated workers get annual increments ranging from 1|2 anna to 2 as. per day within their grades. The wage rates in Barsi Light Railway's workshop are not high, because the workshop is in a small town (Kurduwadi). There the wage-rates are : (i) Fitter Re. 1|- to Rs. 4|- ; (ii) Carpenter Rs. 1|4|- to Rs. 3|8|- ; (iii) Painter Re. 1|- to Rs. 2|8|- ; (iv) Welder, Rs. 1|6|- to Rs. 3|- , (v) Moulder, Rs. 1|4|- to Rs. 3|8|- ; (vi) Blacksmith, Rs. 1|4|- to Rs. 3|- ; (vii) Tinsmith, Rs. 1|8|-, etc.

In the E. I. Railway's workshop at Lilloah the grades for workmen are as follows :

TABLE 148.

Grades for Lilloah Workshop Employees.

Category	Grade
Unskilled	Rs. 18—1—21
Semi-skilled (Boys)	Rs. 12—1—18
,, (Adults)	Rs. 22—1—28
Skilled	(i) Rs. 22—1—28
	(ii) Rs. 30—1—40
	(iii) Rs. 44—2—60
Charge heads (Gr. I)	Rs. 30—3—45—5—60
(Grade II)	Rs. 65—5/2—85
Non T.T. Chargemen	Rs. 100—10/2—120

In the Kharagpur Workshop of B. N. Railway, workers have been divided into various classes and the following grades have been fixed :

TABLE 149.

Wage-rates in B. N. Railway's workshop (Kharagpur).

Group	Some important occupations included in the Group	Revised scales of pay Rs.	Old scales of pay. As. per day
I skilled ..	Semi-Diesel Driver, spl. Electric Welder, Gauge Fitter, Gauge turner, etc.	60 0 0	48—2—50—3—56
II „ ..	Boiler-maker, Carpenter, Die-sinker, Fitter, Moulder, Turner, Welder Winder, Pattern-maker, Wireman, etc.	60 0 0 48 0 0 36 0 0	(i) 32—2—46 (ii) 16—2—31
III „ ..	Driver, Grinder, Machinemen (Driller, Forging-Machine, Gear Cutter) Miller, Slotter, Sawyer, Turner, Wheel, Trimmer, etc.	45 0 0 39 0 0 33 0 0	(i) 30—2—40 (ii) 12—1—16—2—29
IV „ ..	Carpenter (Rough), Core maker, Crane Driver, Mason, Painter, Rivetter, etc.	36 0 0 30 0 0	(i) 24—2—32 (ii) 12—1—16—2—33
V Semi skilled ..	Fu naceman Paint mixer. Motor Trolly Driver, Machine Attendant, Muccadum (male), etc.	30 0 0 27 8 0	(i) 21—2—25 (ii) 12—1—16—2—19
VI „ ..	Machinemen (Hydraulic, Press, Sand mixer, Sawman, Screwer, Shearer, etc.)	30 0 0 27 0 0	(i) 18—2—23 (ii) 11—1—17
VII Inferior ..	Fettler, Fireman Hammerman, Machine Feeder, Cleaner and Oiler, etc.	21 0 0	12—1—16
VIII „ ..	Carpenter Boy, Female Muccadam, Rivet Boy	18 0 0	10—1—14
IX „ ..	Pointsman	18 0 0	11—1—12
X „ ..	Cleaner, Male Coolie, Trollyman	17 4 0	10½—1—11½
XI „ ..	Carpenter Boy and Rivet Boy (both below 17 years.)	9 1 11	6—1—10
XII „ ..	Female coolie	12 0 0	8—1—9

The rates of wages in the larger workshops, *viz.*, E. I. Railway and B. N. Railway workshops are fixed rates in the sense that they do not fluctuate with the supply and demand position in the labour market. The rates have been fixed with regard to relative importance and nature of work done, though the cost of living and the wages paid in the adjacent railways and similar engineering concerns in the locality have also some influence on the fixation of the wage rates. In the following table wage rates of two small workshops in Bengal are given.

TABLE 150.

Wage-rates in two small Bengal Workshops

Occupation	Martin & Co.'s Makarda Workshop		D. H. Rly.'s Tindheria Workshop	
	Minimum Rs. p. d.	Maximum Rs. p. d.	Minimum Rs. p. d.	Maximum. Rs. p. d.
Fitter	0 12 6	2 2 3	0 6 0	2 0 0
Turner	0 12 6	1 13 0	0 6 0	1 10 0
Driller	0 15 6	1 3 3	0 6 0	1 1 0
Beltman	..	0 13 9	0 10 0	0 12 0
Fir man	0 11 3	0 15 6	0 8 0	0 11 0
Blacksmith	0 11 3	1 11 9	0 6 0	2 0 6
Boiler-maker	1 1 3	1 15 0	0 12 0	1 10 0
Welder	0 12 6	1 15 0	..	1 13 0
Painter	0 9 3	0 12 6	0 5 0	1 5 0
Carpenter	0 12 6	1 8 9	0 12 0	2 5 0
Khalasy	0 9 3	1 2 0	0 6 0	0 11 6

TABLE 151.

Daily Wage-rates in N. W. Railway Workshops (Lahore).

Occupation	Revised scale (applicable to staff engaged after 16-7-1931)	Old Scale (applicable to staff appointed before 16-7-1931)
Cooly	9 As.—1 anna—11 As.	10 As.—1 anna—12 As.
Semi-skilled	12 As.—1 anna—Re. 1	14 As.—1 anna—Rs. 1-2
Skilled	(a) Rs. 1-2—1 anna—Rs. 1-8 (b) Rs. 1-10—2 As.—Rs. 2 (c) Rs. 2-4 (fixed)	Rs. 1-4—2 As.—Rs. 2-4
Maistry	(a) Rs. 2-6—3 As.—Rs. 3-12 (b) Rs. 3—4 As.—Rs. 3-8 (c) Rs. 3-12—4 As.—Rs. 4-12	Rs. 2-10—3 As.—Rs. 4-2 Rs. 4-4—4 As.—Rs. 5-8

Dearness and other Allowances.—A detailed account of Dearness and other Allowances has been given in the Report on Non-Gazetted Railway Services. Most of the railways have adopted the scale prescribed by the Railway Board, which provides for the payment of dearness allowance at the rate of 17-1/2 per cent. of pay, subject to certain minima. Some of the company-managed railways have their own scales. For example, skilled hands in Martin & Co.'s workshop are given dearness allowance at the rate of Rs. 9 per month and the unskilled workers at the rate of Rs. 7 per month. In the D. H. Railway's workshop, dearness allowance is at the rate of Rs. 20 for 26 working days. Various local allowances are in existence in many workshops. The B. B. & C. I. Railway workers in Bombay get a Bombay Local Allowance at the rate of 20 per cent. to subordinate staff drawing up to Rs. 50 and 15 per cent. to those drawing over Rs. 50. This allowance is permanent. In some of the M. & S. M. Railway workshops, workers employed in connection with munition work are granted a bonus of 20 per cent. of pay, up to 48 hours per week and 25 per cent. for time over 48 hours. In Barsi Light Railway Workshop, the workers get one month's wages as bonus. In many railways, workers who are members of D. of I. units are granted 25 per cent. of their basic pay as Military Compensatory Allowance and a ration allowance varying from 4 as. to Rs. 1-1-0 per diem. The ration allowance is higher in the case of Anglo-Indians than that given to Indians. Members of the A. R. P. organisations in B. N. Railway and E. I. Rly. get an allowance at the following rates.

TABLE 152.

Allowances paid to Members of A. R. P. Organisations.

Pay	Fire Fighting Staff	Others
	Rs.	Rs.
Not exceeding Rs. 30 p.m.	4	3
Rs. 31 to Rs. 65 p.m.	6	5
Rs. 66 to Rs. 100 p.m.	10	8
Rs. 101 to Rs. 200 p.m.	12	10
Rs. 201 and above	24	20

Earnings.—The monthly wages and earnings of some important categories of workers in some railways are given below :

TABLE 153.

Monthly Wages and Earnings in G. I. P. Railway Workshops.

Occupation	Concern	No. of workers	Basic wages earned			Gaoss Earnings		
			Maximum	Minimum	Average	Maximum	Minimum	Average
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Fitters ..	I	16	99	49	65	137	75	94
	III	82	60	50	58	92	66	79
	VII	15	53	34	43	69	47	52
	VIII	2	57	44	50	71	58	64
	IX	2	55	46	51	65	55	60
	X	1	..	..	42	..	..	57
	XI	17	112	45	73	127	57	84
	XII	9	66	38	48	75	47	57
	XIII	11	86	45	78	104	56	87
	XIV	4	68	45	62	97	56	79
	XV	12	69	41	54	93	58	72
Turners ..	I	5	91	46	62	118	73	87
	III	12	62	48	55	73	44	59
	XIII	1	..	..	88	..	..	99
	XV	1	..	..	73	..	..	94
Machinemen ..	III	4	37	35	36	46	39	43
	VII	1	..	..	50	..	..	64
	XI	3	112	75	88	124	86	90
	XV	3	86	55	67	104	71	84
Carpenters ..	I	19	89	45	66	117	61	93
	VIII	2	52	36	44	66	50	58
	IX	2	55	30	43	64	38	51
	X	3	55	33	51	70	46	62
	XI	1	..	..	45	..	..	56
Painter ..	I	4	73	59	63	89	75	79
	VIII	1	..	..	38	..	..	51
	IX	1	..	..	48	..	..	62
	X	1	..	..	18	..	..	27
	XV	3	68	44	54	95	60	77
Blacksmiths ..	III	2	42	35	39	51	50	50
	VII	2	50	29	39	63	41	52
	VIII	1	..	..	47	..	..	61
	IX	1	..	..	32	..	..	41
	X	1	..	..	32	..	..	46
	XI	2	75	66	71	85	77	82
	XII	2	62	38	50	71	47	59
	XIII	1	..	..	88	..	..	99
	XV	7	74	35	56	95	51	74
Masons ..	VIII	2	49	28	38	63	46	52
	IX	3	55	26	34	64	35	48
	X	3	55	29	41	69	43	59
	XV	1	..	..	49	..	..	68
Strikers ..	VII	1	..	..	26	..	..	40
	XII	1	..	..	26	..	..	35
	XV	6	29	22	26	47	38	43
Boiler maker ..	III	23	57	41	49	68	50	59
	XIV	1	..	..	45	..	..	78
	XV	2	66	63	65	92	82	87
Coolies ..	I	34	26	19	22	50	35	40
	VII	54	28	12	16	47	24	30
	VIII							
	Male	15	20	14	19	34	27	31
	Female	5	16	13	15	30	27	29
	IX							
	Male	13	18	13	15	27	22	23
	Female	8	16	11	14	25	20	24
Coolies ..	X	16	18	13	16	32	27	28
	XII	60	23	15	23	32	24	27
	XIII	27	25	15	22	48	24	33
	XV	67	28	20	25	48	36	40
Box-boys ..	XIV	5	15	14	15	24	22	23

NOTE.—Concerns I & XV (Bombay), X (Sholapur) and Nos. VII & VIII (Poona) are in big cities, while others are in smaller towns. Hence the disparity in wages.

TABLE 154.

Wage-rates in B. B. & C. I. Rly. Workshops.

Occupation	Concern	No. of workers	Basic Wages earned			Gross earnings		
			Maximum	Minimum	Average	Maximum.	Miminum	Average
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Fitter ..	II	11	85	70	56	..	..	..
	V	17	96	63	56	114	67	70
Turner ..	V	5	74	39	43	89	52	53
Carpenter ..	V	3	89	70	72	105	87	86
Painter ..	V	1	..	..	55	..	..	70
Welder ..	V	1	..	..	63	..	..	79
Moulder ..	V	1	..	..	64	..	..	77
Blacksmith ..	V	1	..	..	90	..	..	107
Striker ..	V	1	..	..	17	..	..	24
Cleaners ..	V	8	27	27	21	40	39	31

NOTE.—No. II is in Bombay and No. V is in Dohad.

The average monthly wages and earnings in seven workshops of the M. & S. M. Railway are given below. These workshops are small units and are divided as follows : (i) 4 workshops (in Hubli, Karajigi, Dharwar and Alanawar) in Dharwar District, (ii) one workshop in Gadag; (iii) and (iv) two workshops in Madras. The first five workshops belong to the Operating Department, while the two in Madras are (a) Signal Workshop and (b) Loco Running Shed.

TABLE 155.

Monthly Wages and Earnings in M. & S. M. Railway Workshops.

Occupation	Dharwar District (4 workshops)		Gadag (1 workshop)		Madras (Signal Works)		Madras (Loco Running Shed)	
	Wages	Earnings	Wages	Earnings	Wages	Earnings	Wages	Earnings
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Fitters	42	56	36	50	57	95	40	74
Turners	43	57	45	59	..	..	59	87
Machinemen ..	32	44	40	51	..	..	40	76
Carpenters ..	59	77	46	64	50	87	..	..
Painters ..	11	19	15	27	..	..	..	..
Blacksmiths ..	50	65	46	63	23	52	54	68
Tinsmiths ..	59	76	..	..	21	48	21	50
Boilermakers ..	38	52	34	46	..	..	45	82
Hammermen ..	..	..	..	..	21	50	24	57
Lascars ..	..	..	..	..	21	48	21	50
Coppersmiths ..	..	..	59	70	..	..	59	73
Maistries ..	19	28	24	33	..	..	30	56
Coolies	12	22	14	32	..	..	14	36

NOTE.—'Wages' and 'Earnings' in the above table refer to 'Average Monthly Basic Wages' and 'Average Monthly Gross Earnings'.

Lastly, the Wages and Earnings in the Kurduwadi Workshop of the Barsi Light Railways are given below.

TABLE 156.

Monthly Wages and Earnings in Barsi Light Rly.'s Workshop.

Occupation	No. of workers	Basic Wages			Gross Earnings		
		Max.	Min.	Ave.	Max.	Min.	Ave.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Fitters	28	104	18	58	144	30	74
Machinemen	17	86	36	48	121	54	70
Carpenters	9	78	20	52	87	32	67
Painters	8	65	21	35	83	34	49
Welders	3	62	49	53	75	65	70
Moulders	7	91	20	55	115	32	73
Blacksmiths	6	72	21	51	98	34	73
Tinsmiths	1	..	..	18	..	..	27
Boilermakers	9	78	42	50	87	59	61
Coppersmiths	2	46	44	45	59	61	60
Rivetters	10	39	21	35	54	35	45

Overtime, Deductions and Fines.—Overtime is worked in the larger workshops according to exigencies of the situation and is paid for in accordance with the provisions of the Factories Act. Except in one or two workshops, overtime is not compulsory, nor is it necessary to make it so because workers themselves are anxious to work overtime for the extra earnings they get.

Deductions on the following counts which may be compulsory or voluntary, are made from wages : (i) Adjustment of over-payment of wages for absence from duty and advance of pay, (ii) Provident Fund, (iii) Fines, (iv) Death Benefit Fund, (v) Postal Insurance, (vi) Income-Tax and Surcharge, (vii) House Rent, (viii) Conservancy and Water Charges, (ix) Meter and Electric Charges, (x) Duty on Electricity, (xi) Loss or Damage directly attributable to neglect or default, (xii) Diet charges, (xiii) School Fees, (xiv) Defence Loans, (xv) Defence Savings from Provident Fund, (xvi) E. C. Bank Loans, (xvii) Mutual Benefit Society, (xviii) Railway Institute Fees, (xix) Court Attachments and (xx) Miscellaneous such as penalty for loss of railway passes or of ration cards.

In the case of State Railways, the amount of fines is credited to the Staff Benefit Fund, maintained for the Railway as a whole. This Fund is administered by a Committee presided over by the General Manager, and is utilised for the education of the staff and their children, recreation and amusement, relief of distress, etc. In the G.I.P. Railway alone, the amount outstanding in the Fund at the end of the financial year 1943-44 was Rs. 3,67,145.

Wage Periods.—Monthly system prevails in all the units. In the smaller workshops wages are paid within the seventh of the next month and in the larger workshops by the 10th according to the provisions of the Payment of Wages Act.

Holidays.—Workshops are generally closed on Sundays. In some concerns no additional holidays are granted, while in others the number of such holidays varies from 2 to 15. These may be paid or unpaid. For example, the N. W. Railway's Loco. and Carriage & Wagon Shops have 25 holidays, of which 5 are unpaid.

III.—Working Conditions.

Hours of work, Shifts and Rest-interval.—The following table gives the details about hours of work, shifts, rest interval and spreadover in the concerns investigated.

TABLE 157.

Hours of Work, Shifts, Rest-interval and Spreadover.

Railway	Concern	No. of shifts	Working hours	Rest hours	Actual hours worked	Total spread-over	Remarks.
G. I. P.	I	1	8 to 12 & 13 to 17·30	1	8½	9½	Monday to Friday.
			8 to 13·30	..	5½	5½	On Saturday.
		2	(i) 8 to 12 & 13 to 19	1	10	11	Machine screw production workers. From Monday to Saturday.
			(ii) 20 to 24 & 1 to 7	1	10	11	
	II	2	(i) 8 to 12 & 13 to 19	1	10	11	
			(ii) 20 to 24 & 1 to 7	1	10	11	
	III	3	..	..	8	8	For 'continuous' workers.
		1	..	..	9	9	
		2[a·4]	..	..	12	12	For 'intermittent' workers.
	IV	2	(i) 7 to 12 & 13 to 18	1	10	11	
			(ii) 19 to 23 & 24 to 6	1	10	11	
		3	(i) 6 to 15·30	..	9½	9½	For 9 workers, i.e., 3 in each shift for shunting engines, etc.
			(ii) 14 to 23·30	..	9½	9½	
			(iii) 23 to 8·30	..	9½	9½	
	V to VII	3	(i) 0 to 8	..	8	8	
			(ii) 8 to 16	..	8	8	
			(iii) 16 to 24	..	8	8	
		1	8 to 12 & 13 to 20	1	11	12	
	VIII	1	8 to 13 & 14 to 18	1	9	10	
	IX	1	8 to 12 & 13 to 17	1	8	9	
	X to XII	1	8 to 13 & 14 to 18	1	9	10	
	XIII	2	(i) 8 to 12 & 13 to 17·30	1	8½	9½	For carriage repairs.
			(ii) 8 to 12 & 13 to 17	1	8	9	For wagon repairs.
	XIV	2	(i) 8 to 12·30 & 13·30 to 17·30	1	8½	9½	Repair shop.
			(ii) 9 to 13 & 13·30 to 17·30	1	8	8½	Inspection shed.
	XV	2	(i) 8 to 12 & 13 to 17	1	8	9	
			(ii) 17·30 to 20·30 & 21·30 to 0·30	1	7	8	
	XVI	1	7·30 to 12 & 13 to 16·30	1	8	9	
B. B. & C. I.	I	1	8 to 12·30 & 13·30 to 17·30	1	8½	9½	Monday to Friday.
			8 to 13·30	..	5½	5½	Saturday.
	II	1	8 to 12·30 & 13·30 to 18	1	9	10	
	III	2	(i) 8 to 12·30 & 13·30 to 17·30	1	8½	9½	
			(ii) 20·30 to 1·30 & 2·30 to 7·30	1	10	11	
	IV to VI	1	..	1	9	10	
		3	..	..	8	8	
Barsi Light		1	7·30 to 12 & 13 to 17	1	8½	9½	
M. & S. M.	I	1	8 to 12·30 & 13·30 to 18	1	9	10	Monday to Thursday.
			8 to 12·30 & 13·30 to 17	1	8	9	Friday.
			8 to 12	..	4	4	Saturday.
		3	(i) 0 to 8	..	8	8	For the battery charging staff who are allowed 24 hours off once in 14 days.
			(ii) 8 to 16	..	8	8	
			(iii) 16 to 24	..	8	8	

Railway	Concern	No. of shifts	Working hours	Rest hours	Actual hours worked	Total spread-over	Remarks
M. & S. M.	II	3	(i) 0 to 8·10	..	8-1/6	8-1/6	Overlapping of 10 minutes to give the charge of work to the next shift.
			(ii) 8 to 16·10	..	8-1/6	8-1/6	
			(iii) 16 to 0·10	..	8-1/6	8-1/6	
	III	2	(i) 8 to 12·30 & 13·30 to 19	1	10	11	
			(ii) 19 to 24 & 3 to 8	3	10	13	
	IV	2	(i) 8 to 12·30 & 13·30 to 18	1	9	10	Monday to Thursday.
			8 to 12·30 & 13·30 to 17	1	8	9	Friday.
			8 to 12	..	4	4	Saturday.
			(ii) 19 to 24 & 3 to 18	3	10	13	Sunday to Friday (night shift.)
	V to VIII	4	(i) 7·30 to 11·30 & 13·30 to 17·30	2	8	10	
			(ii) 9·30 to 13·30 & 15·30 to 19·30	2	8	10	
			(iii) 19·30 to 23·30 & 1·30 to 5·30	2	8	10	
			(iv) 21·30 to 1·30 & 3·30 to 7·30	2	8	10	
		4	(i) 8 to 12 & 14 to 18	2	8	10	
			(ii) 10 to 14 & 16 to 20	2	8	10	
			(iii) 20 to 24 & 2 to 6	2	8	10	
			(iv) 22 to 2 & 4 to 8	2	8	10	
	IX	2	(i) 8 to 12 & 14 to 18	2	8	10	
			(ii) 20 to 24 & 2 to 6	2	8	10	
	X	1	8 to 12·30 & 13·30 to 17·30	1	8½	9½	Monday to Friday.
			8 to 13·30	..	5½	5½	Saturday.
	XIV	½	8 to 13 & 13·30 to 17	½	8½	9	
	XV	7	(i) 8 to 12 & 13·30 to 17·30	1½	8	9½	General shift.
			(ii) 10 to 13·30 & 15 to 20	1½	8½	10	Continuous Process Shifts ' for some essential workers.
			(iii) 20 to 24 & 2 to 6	2	8	10	
			(iv) 22 to 2 & 4 to 8	2	8	10	For Lascars (who are governed by Hours of Employment Rules).
			(v) 24 to 8	..	8	8	
			(vi) 8 to 16		8	8	
			(vii) 16 to 24	..	8	8	
	XVI	3	(i) 8 to 12·30 & 13·30 to 17·30	1	8½	9½	General shift
			(ii) 8 to 12·30 & 13·30 to 19	1	10	11	
			(iii) 19 to 21 ; 21·30 to 1 & 2·30 to 7	2	10	12	
B. N.	I	*	(i) 7·30 to 12 & 13·30 to 18	1½	9	10½	General shift.
E. I.	1	2	(i) 8·30 to 12·30 ; 13 to 19 & 19·30 to 20·30	1	11	12	Day shift (including overtime).
			8·30 to 13·30	..	5	5	Saturday Night shift (including overtime).
			(ii) 20·30 to 1 & & 2 to 8·30	1	11	12	

Railway	Concern	No. of shifts	Working hours	Rest hours	Actual hours worked	Total spread-over	Remarks
D. H.	I	1	7 to 11 & 13 to 17	2	8	10	
N. W.	I & II	**	(*i*) 5 to 11 & 12 to 18	1	12	13	For 16 brass foundry workers.
			(*ii*) 7 to 12 & 13·15 to 18·15	1½	10	11½	For 1634 workers.
			(*iii*) 7·30 to 12 & 13 to 17	1	8½	9½	For 3284 workers.
			(*iv*) 7·30 to 12 & 13 to 18·30	1	10	11	
			(*v*) 7·30 to 13·30 & 14·30 to 20·30	1	12	13	For 1834 workers.
			(*vi*) 18 to 24 & 1·15 to 7·15	1½	12	13½	For 800 night-shift workers.
			(*vii*) 18·30 to 23 & 24 to 5·30	1	10	11	For 40 workers.

* There are about 54 relays for 19 groups of workers. The present shift arrangements are : three in shops on munition production, two in shops where there is load, and facilities exist for double shift and one in other shops.

** This workshop has at present 12 shifts, of which seven are mentioned.

Overlapping shifts have been shown in the above table. Such shifts, however, are very few and the staff of the overlapping shifts are simultaneously on duty for only less than half an hour. This procedure has been found necessary in order that the progress of a particular operation is not hampered by the change of workers.

Ventilation, Lighting, etc.—The conditions of ventilation, lighting, floor area, etc., were found to be satisfactory in most of the workshops and conform to the specifications laid down in the Factories Act. There is no doubt considerable room for further improvement. For example, some provision is necessary for workers who work in the open. The war-time expansion in certain workshops has inevitably caused some congestion in the workshops.

Shelters.—As the following table shows, very few workshops have provided shelters for their employees during rest-intervals.

TABLE 158.

Shelters.

Railway	Concern No.	Total No. of workers	Details of shelter provided
G. I. P. ..	II	5,377	Details not available.
	XIII	276	Shed (40′ × 12′), fenced on all sides, zinc sheet roofing, no seating arrangements.
	XIV	228	Shed (400 sq. ft.) of galvanised sheets ; 12 benches (12′ long) and 4 tables (12′ × 4′) are kept.
	XVI	707	Structure with corrugated roof and with seating arrangements.
M. & S. M. ..	XVI	6,096	Different sheds for different communities.* Total floor area of the sheds for the carriage works is 16,704 sq. ft. and for the Loco Works 18,000 sq. ft. These sheds are with corrugated sheet roofs and sheet iron side walls and cement floors.
B. N. ..	I	8,875	Rest-shelter in shape of condemned carriage bodies, accommodating about 80 persons.
Martin & Co. ..	I	141	Condemned carriage bodies.

* For Anglo-Indian workers, spacious tiffin rooms are provided in both Carriage Works and Loco Works. The floor area is 1,176 sq. ft. These are well-ventilated buildings, with verandahs on all sides and roofs of Mangalore tiles, furnished with teak-wood tables and benches and clean table linen. Separate kitchens are attached and flush-away type bath rooms and washing facilities are provided. Drinking water is supplied in earthern gobblets by special waiters.

IV.—Welfare Activities.

Sanitary Arrangements.—Arrangements for water-supply, latrines, urinals, washing and bathing are generally in keeping with the requirements of the Factories Act. Latrines and urinals are provided usually in the proportion of one for every 50 workers. Water supply in almost all the cases is through water taps ; provision of water-tanks and tube-wells was found in Bengal workshops. Bathing facilities are non-existent, though washing facilities have been provided by a few workshops. Cool water during summer, usually in earthern jars, is provided in less than one-third of the concerns investigated.

Medical Aid.—Railway workers are much better provided for than workers in other industries, in respect of medical facilities. Generally, every workshop has a dispensary, staffed with a medical licentiate and a compounder and usually catering to all railway employees and their families. For example, for the sampled units in G. I. P., such dispensaries exist in Bombay (Victoria Terminus, Parel and Matunga), Kalyan, Poona, Dhond, Bhusawal, Sholapur and Igatpuri. Besides, in important industrial centres like Bombay (Byculla), Madras (Perambur), Lahore, Lillooah and Kharagpur, the State Railways maintain large hospitals for the railway workers and their families. These hospitals are provided with all modern equipment and staffed with a number of qualified medical officers. The Lillooah hospital and the Kharagpur hospital maintain 12 and 120 beds respectively for indoor patients. Among the company-managed railways, the D. H. Railway and the Barsi Light Railway maintain both a dispensary and a hospital. In the D. H. Railway, the hospital and the dispensary have 12 and 4 beds respectively and are in charge of a doctor assisted by one compounder, one dresser and two nurses. Number of cases treated daily is between 8 and 10. Periodical medical examination is absent, but in all workshops medical examination is taken prior to recruitment.

Canteens.—Satisfactory arrangements have not been made except in the workshops of the G. I. P., Martin Light and the N. W. Railways. In the G. I. P. Railway, 14 of the 16 workshops investigated maintain canteens. All of these, except one, are managed by private contractors, who make considerable profits. These contractors, however, make payment to the Administration in the form of rent or licence fee. The contractor in one of the workshops, for example, pays annually Rs. 72 as rent, while another pays Rs. 12 as licence fees per year. Only one canteen is run by the G. I. P. Railway administration, where tea and light refreshments are provided at rates lower than the market-rates and the loss is borne by the Administration. Separate arrangements are made for Hindus, Muslims and Christians. The Martin Light Railway also manages a small tiffin room, where cheap meals are supplied to workers. The canteens in the N. W. Railway workshops are run by a Committee of Management, selected from among the workers and profits are utilised for the welfare of the staff. In these canteens, tea and light refreshments are sold. In almost all the workshops, tea vendors cater for the workers and tea stalls, hotels or restaurants are situated nearby.

Creche, Education and Grain Shops.—Except in the Kharagpur workshop, which employs 410 female workers, women are rarely employed. None of the workshops, not even the Kharagpur one, maintains a creche. Only in Bhusawal, an infant Welfare and Maternity Centre was found. Facilities for adult education are generally absent, except perhaps the Trade Schools for apprentices mentioned before. The Railway Administrations, however, maintain schools in the bigger railway colonies and also contribute from the Staff Benefit Fund to other schools, where the children of railway employees are admitted. The G. I. P. Railway, for example, runs 9 primary schools and also contributes to

34 other schools providing primary and secondary education to railway employees' children. Besides, monetary help to these children is given from Sir Lawless Hepper Fund and Frank Clarke Educational Purposes Fund. The B. N. Railway at Kharagpur runs primary schools in addition to two high schools—one for boys and the other for girls. At Tindharia, there is one upper primary school managed by the D. H. Railway in which only nominal tuition fees are charged from the children of the workers. The D. H. Railway further contributes to two other mission schools 8 as. per month per head in respect of workers' children. In the State Railways, special and preferential educational facilities are available for Anglo-Indians and Europeans.

Grain shops exist in all the workshops and the prices charged are far below the market rates. This reduction is possible, because of certain advantages, such as transport facilities and existence of co-operative societies, enjoyed by the railways. Most of the essential provisions, including standard cloth, are sold in these shops.

V.—Housing Accommodation.

Most of the railways have provided housing to workers, but more than 75 per cent. workers employed in workshops do not enjoy the benefit of such accommodation. Railway quarters are usually occupied by the other staff. The details of housing of workshop employees are given below.

TABLE 159.

Housing provided by Railways.

Railway	Location or concern	Proportion of workers housed	Types of housing provided	Rental Rs. p. m.
G. I. P. ..	Parel ..	6 (Supervisors) out of 5,377 workers.	C and F types	The assessed rent for the various types are as follows: 'C'—Rs. 50; 'D'—Rs. 35; 'E'—Rs. 45; 'F'—Rs. 42-8-0 'G'—Rs. 80; 'H'—Rs. 30; 'J'—Rs. 4-8-0; 'K'—Rs. 1-12-0
	Dhond	23%	'K' (single room) & 'J' (two rooms) types.	
			Types C D E F G H J K Total No. of Qrs.	
	Bhusawal ..	34%	19 149 2 44 9 23 16 651—913	
	Nandgaon ..	62%	2 25—1—6 74 134—242	Sometimes the rent charged is 9 or 10% of wages earned.
	Igatpuri ..	22%	15 6 2 26 — — 19 23—91	
	Sholapur ..	14%	'K' type	
	Wadi Bunder (Bombay)	1% (3 persons)	'K' type	
	Kalyan ..	24%	B, C, E, F, G, H, J and K types	
	Kurla	5%	F, D and K types	
B. B. & C. I. ..	Bombay Dohad Ajmer	25%	Varying types according to scales of pay.	10% of wages or assessed rent, whichever is less.
Barsi Light ..	Kurduwadi ..	..	Various types as 'C' old 'B', 'I-C', 'I-B', '0-A', 'N.A', 'O.I.A', 'I.A', 'F.C', 'A.A' and Bungalows.	Rent fixed on capital cost subject to a maximum of 10% of salary.
M. & S. M. ..	Hubli ..	14·5%	Standard Types '7' and '2'. Type '7' for staff drawing pay between Rs. 40 and Rs. 79 p.m. Type '2' for staff drawing pay less than Rs. 39 p.m. Single and double room tenements given according to salaries.	10% of wages or assessed rent, whichever is less.
	"	50%		
	"	13·3%		
	Hubli Alanawar Karjagi Dharwar	10·9%		

Railway	Location or concern	Proportion of workers housed	Types of housing provided	Rental Rs. p. m.
M. & S. M. ..	Ghorpuri ..	25%	Single and double room tenements given according to salaries.	
	Madras ..	7%	2B, 7B, 8B, 15, 16, 17, 18B types: tiled quarters, with a small verandah, one room with a floor area of 90 sq. ft. a kitchen of a floor area of 36 sq. ft. and a small bath room and lavatory in an open yard behind, the total area of the yard being about 72 sq. ft.	10% of wages or assessed rent, whichever is less.
B. N. ..	Kharagpur ..	36%	3,406 units—Types and rents are given in next table.	
D. H. ..	Tindharia ..	50 %	.. ..	....
N. W. ..	Lahore ..	4%	(i) One room quarters with verandah. (ii) Two-room quarters.	Rs. 1-10-0 to 1-15-0 (chowkidars free).

TABLE 160.

Housing provided by Kharagpur Workshop.

Type of quarters	Size (Area of rooms per unit) (sq. ft.)	No. of units under occupation of workshop staff	Monthly rent payable. (Rs. per unit)
I	112		1 2 0
A	99	2,084	1 5 0
A1	139		1 14 0
II	190		1 14 0
B	182	734	2 12 0
BI	224		3 6 0
III	287	206	2 14 0
IV	372 (New type)		3 12 0
	436 (Old type)	24	4 6 0
9367C/1	385		5 11 0
V	717 (New type)	69	7 3 0
	767 (Old type)		7 1 0
VI	1,239	5	12 0 0
VII	376	57	3 12 0
VIII	508	9	5 1 0
IX	856	10	8 9 0
Staff qrs.	345	42	2 5 0 (Elec. rent).
Kutcha qrs.	89	166	0 12 0

Sanitation is looked after by the Medical Departments of the Railways and water is generally supplied through taps. Sub-letting, except in the Kharagpur workshop, is not allowed but congestion during the war was inevitable.

VI.—General.

Accidents.—The following table gives details of accidents and of compensation paid for them.

TABLE 161.

Accidents in 1943.

Railway	Concern	No. of accidents	No. of accidents for which compensation was paid	Amount paid in compensation
G. I. P. ..	I	14	..	Full pay for injury periods was granted (all minor cases).
	II	602	..	Rs. 5,259-13-0.
	III	162	..	Rs. 1,699-8-0.
	V	245	245	Rs. 1,650-9-7 (including Rs. 429-9-7 for 3 cases of permanent disablement).
	VI	6	6	Rs. 33-7-0.
	VII	8	8	Rs. 65-11-0.
	VIII	19	13	Rs. 108-3-0.
	IX	20	..	All, except one, were minor cases and full wages for sick period were paid.
	X	3	3	Rs. 41-6-0.
	XI	5	5	Rs. 90-1-0.
	XII	5	5	Rs. 43-6-0.
	XIII	60	60	Rs. 1,906.
	XIV	54	..	Full pay for sick period (all minor cases).
	XV	..	1	Rs. 210.
	XVI	3	..	Rs. 53-11-0 (injury full-pay in all cases).
B. B. & C. I. ..	I	22	21	Rs. 2,491-3-0.
	II	4	4	Rs. 32-2-0.
	III	243	243	Rs. 5,669-0-0.
	V	2	..	Nil.
	VI	10	8	Rs. 48-9-0.
Barsi Light ..	I	17	8	Rs. 28-6-0
M. & S. M. ..	I	6	4	Rs. 7-5-0.
	II	2	2	Rs. 3-13-0.
	III	1	..	Nil.
	IV	131	131	Rs. 1,615-10-0.
	V to VIII	89	63	Rs. 442-2-0.
	IX	6	6	Rs. 41-12-0.
	XIII	6	..	Nil.
	XVI	240	..	Rs. 5,281-5-0.
E. I.	I	188	155	Rs. 2,975 (approx) (28 cases were serious).
B. N.	I	224	13	Rs. 11,205 (approx).
Martin Light ..	I	36	..	About Rs. 200.
N. W.	I	580	251	Rs. 6,511-11-0.
	II	731	296	Rs. 2,558-4-0.

Indebtedness.—Most of the railways have started Co-operative Banks for the issue of loans to workers. In the G. I. P. Railway workers are granted loans only after the completion of five years' service. The rate of interest charged by the Employees' Co-operative Bank is 6-1/4 per cent. During the year 1943-44, loans issued to all railway workers totalled Rs. 34.4 lakhs. The

Bank is managed by the representatives of employees and Railway Administration. In the B. B. & C. I. Rly., about 30 per cent. of the staff is usually indebted and the interest charged is 3-1|4 per cent. per annum. The Co-operative Credit Society in the Barsi Light Railway Company charges at the rate of 9-3|8 per cent. per annum. In the M. & S. M. Railway, a majority of workers are members of the M. & S. M. Railway Employees' Urban Bank, Ltd. which lends money at the rate of 6-1|4 per cent., up to 12 times the monthly pay of a member and recovers by small instalments up to 36 in number. From the figures given by this Bank, it seems that the indebtedness of railway workers has been on the decline in recent years, as the total number of loans given as well as the total amount lent by the Urban Bank has been falling.

TABLE 162.

Loans given by M. & S. M. Rly. Employees' Urban Bank.

Year	Number of loans	Amount (Rs.)
1939-40	14,367	52,61,268
1940-41	13,982	52,19,918
1941-42	14,765	57,22,926
1942-43	11,444	42,76,765
1943-44	11,406	44,05,026

The E. I. Railway maintains two co-operative societies, one at Calcutta and the other at Lucknow, from which staff can borrow money up to 7 months' pay. These loans are recoverable in easy instalments ranging from 12 to 48. Lower paid employees, who are not eligible for loans from these societies are granted loans from "Lower Paid Staff Loan Fund". The B. N. Railway maintains a Railway Employees' Urban Bank, which advances loans on easy rates, *viz.*, 7-1|2 per cent. recoverable from employees' salaries. Of the 81,506 railway employees, 32,333 are members of this Bank and 27,912 members have outstanding loans to the extent of Rs. 1,20,25,300. Interest-free advances are also given from Provident Fund in case of sickness. The Tindharia workshop (D. H. Railway) also maintains a Co-operative Credit Society from which all employees can have loans on nominal rates of interest. The N. W. Railway staff is permitted to obtain loans up to 6 months' pay from the N. W. Railway Employees' Co-operative Credit Society and also up to 3 months' pay subject to a maximum of Rs. 500 from the P. I. Fund. Workers having more than 3 years' service, who do not subscribe to the P. I. Fund can obtain loans up to a maximum of 4 months' pay from the Lower Paid Staff Loan Fund to meet genuine demands.

For details in regard to Trade Unions, Staff Committees and Strikes, Provident Fund and Gratuity and Pension schemes, reference should be made to the Report on Non-Gazetted Railway Services by Dr. Ahmad Mukhtar.

CHAPTER V.—COACH-BUILDING AND MOTOR-REPAIRING.

Coach-building and Motor-repairing which is also known as Vehicle Assembling and Repairing, is one of the many minor branches of the engineering industry. In 1943, the engineering industry of British India claimed

1,923 factories with 5,13,613 workers, of which only 166 factories with 20,626 workers belonged to this branch. Even these figures are a considerable improvement over the pre-war figures, on account of huge war orders in the shape of repair and maintenance of a very large number of military trucks and lorries. A majority of factories in this industry have been mainly, and some solely, dependent on military work. The expansion of the industry in the chief industrial Provinces is shown in the following table :—

TABLE 163.

Employment in Coach-building and Motor-repairing Factories.

Province	1939		1943	
	No. of Factories	Workers employed	No. of Factories	Workers Employed
Madras	18	1,582	60	4,397
Bombay	41	2,414	31	8,620
Bengal	16	1,550	18	3,370
United Provinces	6	262	16	658
Punjab	6	232	6	1,652
Other Provinces	25	784	35	1,929
Total ..	112	6,824	166	20,626

Coach-building and motor-repairing industry is concentrated in urban and suburban areas. In all, 20 factories were investigated in five Provinces and the details are given below :—

TABLE 164.

Factories Investigated.

Province	Town	Number of Samples Investigated	
		Factories	Workers Employed
Madras	Madras	3	2,4
Bombay	Bombay and suburbs ..	6	7,779
Bengal	Calcutta and suburbs ..	7	2,746
United Provinces	Cawnpore	1	7
Punjab	Lahore	3	257

The nature of work carried on in these concerns falls broadly into four classes, as shown in the following table :—

TABLE 165.

Nature of Work.

Workshop doing	Number of factories in—					Total
	Madras	Bombay	Bengal	U. P.	Punjab	
(i) Repair works and overhauling ..	..	..	1	..	..	1
(ii) Manufacture of parts and accessories and undertaking body building.	2	3	4	1	3	13
(iii) Assemblage of plants	1	2	1	..	..	4
(iv) Miscellaneous work	..	1	1	..	..	2
Total ..	3	6	7	1	3	20

Though this branch, like all other branches of Engineering, has developed considerably during war-time, many of the factories have been in existence for a fairly long time. Out of the seventeen concerns which supplied information in this respect, one was established in 1840, one in 1873 ; seven during 1900—1920, four during 1920—30, two during 1930—38 and only two during the War

I.—Employment.

During the war, the transport system of India was geared to an unprecedented pitch of activity. Every effort was made to put to the maximum use all available vehicles. The result of this was to create an increasing amount of work for the coach-building and motor-repairing factories. These factories undertook repair work, overhauling, production of parts and accessories and assemblage work. As the following table shows, employment figures everywhere registered a phenomenal increase.

TABLE 166.

Increase in Employment.

Province	No. of concerns	Total daily employment.		Average employment		%increase or decrease
		1939	1944	1939	1944	
Madras	3	753	2,440	251	813	224
Bombay	6	1,278*	7,779	255	1,297	409
Bengal	7	1,122	2,746	160	392	145
United Provinces	1	31	74	31	74	139
Punjab	3	119	257	60	86	43

* 1939 figures of one factory are not available.

Some of the individual concerns, which concentrated on war production, showed a remarkable rise in employment. In two Bombay concerns, for example, employment in 1939 was 126 and 727. This rose to 1,247 and 6,022 respectively in January 1944 ! Similarly, in Bengal the number of workers employed in two concerns rose from 94 and 380 in 1939 to 671 and 1,289 respectively in 1944. One concern in Madras, which employed 430 workers in 1939, had 1,736 workers in its employment during January 1944. Employment figures in some of the concerns seem to be stationary, while in two of the concerns the level of employment in 1944 shows a decrease as compared to the 1939 figures, the reason being that these factories have not undertaken military work. However, the general level of employment was on the increase in war-time and an indication of this general increase in the size of workshops is evident from the following table :—

TABLE 167.

War-time Expansion in Industry.

No. of workers	Number of units employing the number specified	
	1939	1944
20—50	5	3
51—250	8	8
251—400	3	2
401—600	1	2
601—1,500	1	3
1,501—2,000	1	1
2,001—6,500	Nil	1

1939 figures of two concerns are not available.

Some salient features in the industry in the matter of employment are (1) preference shown to direct employment rather than employment through contractors, (2) non-employment of women and children and (3) payment of time-rated wages. Out of the 20 factories investigated, contract labour was found only in three factories (1 in Bengal and 2 in the Punjab). Contractor's labour in the Bengal factory is utilised for tailoring work and its extent is given below :—

TABLE 168.

Contract Labour in Bengal.

—	August 1939	January 1944
Total No. of workers in the factory	380	1,289
No. of workers employed through contractors	134	52
Percentage of contract labour to the total number of workers.	35·3%	4·03%

The Punjab factories have taken military contracts and employ about 50 per cent. of their labour for this purpose on a contract basis. Most of this contract labour consists of blacksmiths. Except for the employment of two children in the Cawnpore factory, female and juvenile labour seems to be completely absent in this industry. Piece-rated labour also seems to be extremely rare, except in Bengal where 136 workers in 1939 and 52 workers in 1944 were paid at piece-rates in two out of the seven factories investigated ; piece-rated workers were employed in the Nickel Plating Department in one of the factories.

Length of Service.—The following figures give the classification of workers according to their service in the various Provinces :—

TABLE 169.

Length of Service.

Province.	Length of Service				
	No. of factories.	0—1 year.	years	5 to 10 years	Over 10 years.
Madras	2	916 42·9%	1,142 53·5%	62 2·9%	14 0·7%
Bombay	6	1,984 24·7%	5,625 70·0%	271 3·4%	159 1·9%
Bengal	5	407 17·5%	1,668 66·0%	204 8%	258 9·5%
Punjab	2	36 17·0%	67 31·8%	64 30·3 %	44 20·9%

In the Madras, Bombay and Bengal factories, a majority of workers have between 1 and 5 years' continuous service to their credit. This shows that during the war years a very large number of workers were recruited and were still working in the concerns at the time of our survey. The proportion of workers with over 5 years' service in these concerns is very small. In the Punjab factories, however, war-time increase in employment appears to have been relatively small and, therefore, more than half their employees had more than 5 years' service to their credit.

Classification of Permanent and Temporary Workers.—As a rule there is no regular classification of workers into permanent and temporary categories. For example, as the following, table shows, some of the concerns treat all their workers as temporary, some others treat them as permanent while in some no classification is made at all.

TABLE 170.

Classification of Workers as Permanent and Temporary.

Province	No. of factories			
	which treat their workers as		which have no classification	which have Classification & % of permanent workers
	all permanent	all temporary		
Madras	..	1	2	..
Bombay	1	1	3	1 (96%)
Bengal	1	5	..	1 (95%)
U. P.	1	..	..	..
Punjab	2	..		1 (27%)
Total ..	5	7	5	3

The privileges a permanent worker gets are : sick and privilege leave, a fortnight's notice for termination of service, holidays with pay and payment on monthly basis. However, in many factories, despite the fact that the position of temporary workers is insecure, such workers are offered all other privileges and facilities available to permanent workers. Lastly, in this connection, it may be mentioned that in Bengal, the Motor Industries Association has recently taken up this question with the member firms and has suggested that every firm should classify workers into two categories, *viz.*, permanent and temporary, on the basis of length of service.

Apprenticeship.—Only four concerns claim to have apprenticeship system. However, in most of these concerns, apprenticeship is not regular or well defined. For example one concern each in the Punjab, in Bengal and in Madras have no scheduled period of apprenticeship, it being left to the apprentices to determine their period of training. In other concerns, the training period varies from one year to five years, apprentices are then appointed as regular workers. The remuneration given to apprentices also varies in different factories. The Punjab factory makes no payment to apprentices. In Madras, one factory pays daily wages at the rate of 4 as. to 8 as. while another pays a monthly allowance of Rs. 5 to Rs. 15.

Graded or Time-scale Promotion.—Promotion at regular intervals seems to be common in Madras, Bombay and Bengal and is granted in ten of the concerns investigated. In Bengal, no system of graded or time-scale promotion existed till 1942 when five out of the seven concerns investigated started giving increment in wages at regular intervals on grounds of efficiency, subject to the discretion of the Management. One concern which has large establishments in Madras, Bombay and Calcutta, gives an annual promotion of 3 pies per hour of work for a period of four years. After that, there is an efficiency bar, and, if a worker is found fit, he is promoted to the higher grades. Another well established concern in Bombay gives an annual increment at the rate of 1/2 anna per hour ; there are five wage classes of workers and all the employees commence on a minimum rate, reaching the maximum by annual increments. In a few concerns, the promotions are irregular and generally dependent upon the will of the Manager. In one of the Bombay concerns, for example, permanent workers get an increment of Rs. 5 per annum, while the annual rate of increment for temporary workers varies from 2 as. to 4 as. per day. In another Bombay concern, promotions were given till the outbreak of war, on quality and speed of work, but later they were stopped, and instead dearness and other allowances were granted.

Labour Turnover.—Figures regarding labour turnover were available only in Madras, Bombay and Bengal and are given below :—

TABLE 171.

Labour Turnover.

Province.	Year.	No. of concerns	Average No. of workers employed	Average annual No. of workers left.				Annual % of Labour turn-over
				Retired	Dismissed	Vol. left	Total	
Madras	1943—44	3	2,280	..	4	540	544	19·0%
Bombay ..	1939	3	371	..	39	14	53	14·3%
	1943—44	6	7,799	158	1,586	1,165	2,907	37·3%
Bengal	1939	7	1,160	4*	19	209	232	20·0%
	1943—44	7	2,563	5*	140	342	487	19·0%

* These figures give the number of workers who died.

The above table shows that retirements (except in one concern in Bombay) are practically nil and that the turnover is caused, mostly by dismissals and resignations. This would appear to be the result of the policy of retrenching men in slack periods or of dismissals due to indiscipline.

Absenteeism.—Figures of absenteeism vary from factory to factory and from province to province. In Bengal, in 1939 the mandays lost were 13,412 showing an average daily loss of 4 per cent. In 1943, 26,191 mandays were lost, showing an average daily loss of 3.2 per cent. In the Punjab, absenteeism in one concern in 1944 was 14 per cent. Absenteeism in Bombay and Madras factories is shown below :—

TABLE 172.

Absenteeism.

Province	Year	No. of concerns	Percentage of absenteeism per day		
			Maximum	Minimum	Average
Bombay	1939	3	21%	3·2%	10·9%
	1943	4	11%	6·0%	7·7%
Madras	1939	1	...	..	2·6%
	1943	3	13·59%	2·1%	6·9%

The most common cause of absenteeism is illness, other causes being idleness, serving temporarily elsewhere for earning a daily wage and religious and social ceremonies. No remedial steps except occasional warnings to workers have been adopted by the concerns. The following figures show that absenteeism has a tendency to increase during the latter months of the year.

TABLE 173.

Absenteeism Month by Month.

Month.	Percentage of absenteeism in a Madras Factory.	Man-days lost in a Bombay Factory.
January	8·8	104
February	10·3	126
March	8·8	135
April	5·8	87
May	9·0	92
June	9·9	163
July	7·8	207
August	11·6	195
September	10·8	211
October	23·0	307
November	16·4	237
December	19·6	245

Standing Orders.—Out of twenty concerns investigated only one concern (a Bombay factory), has framed definite Standing Orders for its employees. The Cawnpore factory has adopted the Standing Orders framed by the Employers' Association of Northern India for its members. Four more factories (two in Bengal, one in Bombay and one in Madras) have formulated a few 'Conditions of Employment' to be signed by the workers when they take up employment with the company. These deal with notice for termination of employment, dismissal, payment of wages, obedience to the general rules and regulations of the Company, etc. The remaining fourteen concerns have no Standing Orders or Service Rules.

Recruitment and Labour Officers.—Unskilled workers are recruited either at the gates with the help of *maistries* or are obtained through the unskilled or skilled employees of the concern. Notices are also put up on the notice boards. Skilled workers are recruited sometimes by advertising in newspapers and with the assistance of Employment Exchange or National Service Labour Tribunal. Some concerns have several methods for recruiting worker. For example, one of the factories in Bengal (i) recruits skilled workers through the Labour Tribunal, (ii) maintains a list of its ex-workers, skilled and unskilled, and in the matter of employment gives them preference and (iii) occasionally recruits unskilled labour from amongst those who offer their services at the workshop gate. Only one of the twenty factories employs a Labour Officer, who not only looks after the grievances of the workers, but also recruits new labour.

II.—Wages and Earnings.

Wage rates in 1939 *and* 1944.—Wage rates obtaining in 1939 were not available, but rough estimates have been given. Wages are stated to have increased since 1939 by 2-1|2 to 3 times in U. P. and by 25 to 50 per cent. in the Punjab. The 1941 figures from one of the Madras concerns compared to the 1944 figures, show that there has been appreciable increase. The maximum rate for blacksmiths and carpenters in 1941 was 9 as. per day, while it is Re. 1 at present ; the minimum rate for an electrician stood at 11 as. and it is Re. 1 now. For fitters it has risen from 10 as. to Re. 1 and for hammermen and painters from 10 as. to 14 as. The increase in wage rates in the Bengal factories is given below :—

TABLE 174.

Increase in Wage-rates in Bengal.

Name of occupation	Rates of wages per day	
	1939	1944
	Rs. A. P.	Rs. A. P.
Mechanics	2 4 0	5 6 0
Fitters	1 12 0	4 2 0
Welders	2 1 0	4 6 0
Electrician	1 12 0	4 10 0
Coolies	3 8 0	6 8 0
Turner	(per week) ..	per week 4 8 0

In a number of factories (two in Bombay and four in Bengal) the workers are rated by the hour of work. The following table gives an increase in hourly wage-rates in Bengal.

TABLE 175.

Average Hourly Wage-Rates in Bengal.

Type of workers	Wage-rates		Wage-rates & D.A 1944	Increase since 1939
	1939	1944		
Fitters	0 2 6	0 5 0	0 6 0	140%
Electricians	0 3 0	0 5 0	0 6 0	100%
Turners	0 3 0	0 4 0	0 5 0	83%
Vicemen	0 3 0	0 5 6	0 6 6	216%
Mechanics	0 3 0	0 6 0	0 7 0	233%
Blacksmiths	..	0 3 6	0 4 6	..
Tinsmiths	..	0 3 6	0 4 6	..
Carpenters	0 2 9	0 4 6	0 6 0	100%
Coolies	0 1 6	0 2 9	0 3 9	150%
Painters	0 2 9	0 4 0	0 5 0	82%

The maximum increase in the basic wage-rates in Bengal since 1939 has been to the extent of 138 per cent. If dearness allowances were taken into account, the increase in earnings since 1939 would be greater. It is estimated that workers in the motor vehicle industry of Bengal earned on an average Rs. 1-10-0 per day during 1939 and about Rs. 4|- in 1944, thus indicating an increase of 146 per cent. ; the increase in the hourly wage-rates has been from 2 as. to 6 as.

Wage-rates vary considerably not only from factory to factory but also for different workers in the same occupation. The following table gives the maximum and minimum wage-rates for some important occupations.

TABLE 176.

Monthly Wage-rates in 1944 *(in Rs.).*

Name of occupation	No. of workers.	U. P.			Punjab.		Bombay		Bengal	Madras	
		Max.	Min.	Avr.	Max.	Min.	Max.	Min.	Avr.	Max.	Min.
Turners ..	4	150	50	96	182	30	115	84	52	69	16
Fitters	19	125	30	69	107	15	125	19	65	39	13
Asstt. Fitters ..	18	25	8	10	..	..	..	..	..	..	..
Electricians ..	2	100	90	95	70	40	145	18	65	..	..
Carpenters ..	3	65	40	55	98	46	189	48	59	46	20
Blacksmiths ..	2	60	45	53	156	30	114	29	46	46	23
Drivers	2	60	30	45	50	40	..	..	..	46	20
Painters	4	50	25	38	104	17	139	36	52	46	20
Welders.. ..	1	..	..	55	104	55	65	65	..	59	20
Hammermen ..	2	20	15	18	..	..	..	..	..	29	16
Tailors	2	80	35	58	90	15	166	32	..	..	..
Mechanics ..	...	..	..	..	..	..	166	30	78	65	20
Tinsmiths ..	2	80	8	44	..	..	115	18	46	..	..
Moulders ..	..	..	..	..	208	42	..	..	..	39	20
Cleaners ..	..	..	10	..	33	15	40	18	..	20	20
Coolies	12	24	..	15	50	29	48	28	36	20	16

As the above shows, wages and earnings vary considerably from Province to Province. The position in different areas is, therefore, described in some detail below.

Madras.—The highest wage-rates have been fixed for Motor Mechanics (12 as. to Rs. 2-8-0), Turners (10 as. to Rs. 2-8-0) and welders (As. 12 to Rs. 2-4-0). Next come Blacksmiths (14 as. to Rs. 1-12-0) and Liners (12 as. to Rs. 1-6-0). Hammerman get 10 as. to Rs. 1-2-0, while the unskilled categories, *viz.*, coolies, cleaners and sweepers get wages ranging from 10 as. to Re. 1 per day. Foremen are paid monthly, the range being Rs. 80 to Rs. 175. *Mistries* are paid from Rs 50 to Rs. 75 per mensem in one concern and Rs. 78 in another. The actual wages and earnings in January 1944 of various categories of workers in two concerns (A and B) are given below :—

TABLE 177

Wage-rates and Earnings in Madras (January 1944).

(In Rs. as. p.).

Occupation.	Average daily wage-rate		Average monthly earnings		Average daily earnings	
	A	B	A	B	A	B
Blacksmiths	1 1 6	1 1 11	35 8 0	44 0 9	1 4 4	1 14 7
Carpenters	0 13 2	1 2 7	29 12 11	43 14 5	1 2 4	1 14 6
Coolies	0 12 8	0 10 0	27 13 6	28 7 4	1 1 2	1 3 10
Fitters	0 14 1	1 0 5	30 0 10	40 10 10	1 2 6	1 12 4
Hammermen	0 12 0	0 12 1	26 11 0	35 0 2	1 0 5	1 8 2
Motor Mechanics	1 2 9	..	..	..	..	..
Painters	1 1 4	0 15 6	35 3 8	39 1 11	1 5 8	1 11 3
Tinkers	1 0 4	1 0 5	35 6 5	39 11 5	1 5 9	1 11 8
Turners and Drillers ..	1 2 10	1 3 5	40 11 1	47 0 11	1 9 1	2 0 9
Liners	0 14 10	1 1 8	31 1 8	38 2 10	1 3 2	1 10 7
Welders	1 11 0	1 0 10	46 2 3	26 4 2	1 12 5	1 9 3
Electricians	..	0 15 7	..	37 10 9	..	1 10 3
Lubricators	..	0 12 0	..	32 12 8	..	1 6 10

Note.—Concern A worked for 26 days and concern B for 23 days in January 1944.

A third concern investigated in Madras pays hourly rates and the categories employed therein are all unskilled or semi-skilled, not comparable to those elsewhere. The following tables gives the rates as well as earnings in this concern for February 1944, when it worked for 24 days.

TABLE 178.

Wages and Earnings in a Madras concern (February 1944).

Occupation	Rates of wages (per hour)		Average basic wages (monthly)	Average monthly earnings
	Max.	Min.		
Coolies	0 4 6	0 2 6	31 14 0	45 12 0
Sweepers	0 3 6	0 2 6	28 3 0	40 11 0
Pickers and Checkers	0 7 9	0 4 0	51 14 0	71 0 0
Assemblers	0 7 3	0 4 0	50 3 0	66 9 0
Casemakers	0 6 9	0 4 0	52 12 0	68 4 0
Repairmen	0 7 3	0 4 6	56 3 0	75 15 0
Miscellaneous	0 6 0	0 4 0	..	..

Bombay.—The average monthly basic wage of an unskilled worker varies from Rs. 18 to Rs. 37-7-0 while that of a skilled worker varies from Rs. 29-13-0 to Rs. 140. Similarly, the average monthly gross earnings of the former class range between Rs. 37 to Rs. 63-10-0 and of the latter class between Rs. 39-8-0 to Rs. 156. Out of the six concerns investigated, two calculate the wages of unskilled workers on hourly basis, two on daily basis and one on monthly basis. One of these concerns has a Standard Labour Classification (which has been given in Appendix IV to this Report), fixing definite scales for various classes of workers. Class E comprising cleaners, coolies, assistant greasers, sweepers, etc., has the grade of 2-1|2—1|4—3-1|2 as. per hour, while class D consisting of openers, greasers, grinders, hammermen, metal washers, stencillers, etc., gets 3-1|4—4 as. per hour. Classes A, B and C comprise skilled workers. Blacksmiths and painters usually get the highest wages, usually between Rs. 1-8-0 to Rs. 4-0-0 per day.

Bengal.—The wage-rates for some classes of workers in Bengal have been given above. The actual earnings, including allowances and payment for overtime however, are higher. The position at present as regards weekly earnings including allowances and overtime is as follows :—

TABLE 179.

Average weekly Earnings in Bengal (1944).

Name of occupation	Basic Rs.	Gross Rs.
Fitters	9 1 0	21 3 0
Vicemen	12 0 0	20 10 0
Turners	14 0 0	23 14 0
Blacksmiths	13 8 0	16 0 0
Tinsmiths	11 8 0	14 4 0
Hammermen	9 0 0	10 8 0
Welders	15 8 0	24 0 0
Carpenters	12 0 0	19 8 0
Moulders	12 8 0	17 0 0
Painters	12 0 0	15 0 0
Tailors	11 0 0	18 0 0
Platers	15 0 0	19 0 0
Coolies	10 0 0	12 0 0

Dearness Allowance.—One of the following three methods is generally followed in paying dearness allowance: (i) payment at a flat rate (daily or monthly), (ii) payment on a percentage basis, and (iii) payment according to a sliding scale based generally upon the cost of living index. The following table classifies the concerns according to these categories.

TABLE 180.

Methods of Payment of Dearness Allowance.

Province	Total No. of concerns	Dearness allowance paid			Mixed sliding scale	No dearness allowance.
		at flat rate	on percentage basis	On a sliding scale		
Madras ..	3	1	1	1	..	..
Bombay ..	6	2	2	2	..	..
Bengal ..	7	5	1	..	1	..
Punjab ..	3	..	1	..	1	1
U. P. ..	1	..	..	1	..	..

Seven out of eight concerns, which pay dearness allowance at flat rate, have got a uniform rate for all workers, which is Rs. 0-9-3 per day in Madras and 8 as. and 10 as. per day in Bombay. In Bengal, four concerns pay dearness allowance at a flat monthly rate. This varies from Rs. 14 to Rs. 25. The fifth concern pays Re. 0-11-9 per day. Dearness allowance as a percentage of the wages, is paid in five concerns, three of which are branches of one company. (The development of Dearness Allowance and Bonus system of this company is given in Appendix V). In all cases, where dearness allowance is calculated on a percentage basis, it varies inversely as the income. The following figures relate to the dearness allowance paid in two of the five concerns, as a percentage of basic wages. (The remaining three concerns follow the system given in Appendix II.)

TABLE 181.

Dearness Allowance.

Wage Class	Bombay Factory		Punjab Factory	
	Income Group	Dearness Allowance as a percentage of wages.	Income Group	Dearness Allowance as a percentage of wages.
I	Up to Rs. 100 ..	70%	Up to Rs. 25 ..	40%
II	Rs. 100 to Rs. 200	60%	Rs. 26 to Rs. 100	30%
III	Over Rs. 200 ..	50%	Rs. 101 to Rs. 297	25%

Sliding scale system, based on the cost of living index figures, has been adopted by only four concerns. Of these, the U. P. concern ascertains its Dear Food Allowance in accordance with the index calculated by the Employer's Association of Northern India, Cawnpore, and it is as follows :—

TABLE 182.

Dear Food Allowance in U. P.

Income Group.	Amount of Dearness Food Allowance when the cost of living index is	
	between 230 to 260 points	above 260 points
	Rs. A. P.	per point Rs. A. P.
Up to Rs. 25	0 3 6	0 0 1
Rs. 26 to Rs. 50	0 3 0	0 0 1½
Above Rs. 50	0 2 6	0 0 2

The two Bombay factories follow the sliding scale laid down by the Bombay Millowners' Association for their member mills. However, one of them pays the full amount, while the other pays only to the extent of 2/3rd of the amount sanctioned by the scale. The Madras factory pays at the rate of 2 as. per point above 100 according to the cost of living index. The dearness allowance in January 1944 amounted to Rs. 7 per worker per month. In two factories,

more than one method is being used. In a Bengal concern, for example, the dearness allowance is at a flat rate of Rs. 19-4-3 for workers earning up to Rs. 75 p.m., while it is at 25 per cent. of the wages for those who earn more than Rs. 75 p.m. Similarly, in a Punjab concern, dearness allowance of 3 as. to 6 as. per day is paid to the daily-rated labour whereas the monthly rated workers get 20 per cent. of their wages as dearness allowance.

The development of dearness allowance in all these concerns has been somewhat on the following lines. Usually it started as a small amount paid at flat rate to all workers without any wage groups. Thereafter, however, a complex system arose. Appendix II shows the development of dearness allowance in a company, three of whose branches (one each in Madras, Bombay and Calcutta) were investigated during this survey. Some of the concerns call the dearness allowance as Dear Food Allowance, or Emergency Allowance or even War Bonus. The dearness allowance in most cases is considered to be connected with the cost of living and hence generally in most of the concerns no specific conditions are attached to its payment. In one of the Bombay concerns, full dearness allowance is not paid until the workman has completed one year's service ; till then he is paid only to the extent of 33-1|3 per cent. Lastly, concerns which do not give a separate dearness allowance, have had to increase the basic wages of their workers.

Bonus.—Seventeen of the twenty concerns investigated pay an annual bonus to their workers which varies from half a month's to three months' wages to workers. One concern in Bengal, an exceptional case, allowed nine months' wages as bonus in 1943-44. Generally, the payment of bonus is conditional upon the fulfilment of certain conditions such as employment for a specific period before the declaration or the grant of bonus. In the U. P. factory, bonus at the rate of 2 as. per rupee of pay drawn by workers during the year is paid to the worker who fulfils the following conditions of service. He must have been (i) in service for at least 15 days before the close of the financial year ending on the 30th April ; (ii) in service on the date of the declaration of bonus ; (iii) in service on the date of payment of bonus ; and (iv) in continuous service from at least the 15th of April to the date of the payment of bonus. In a Bombay factory, bonus was paid in December 1943 at the rate of one day's wage for every ten days worked subject to a maximum of 26 days' wages. In addition, every half year, fifteen days' wages were paid to workers, who had completed one year's service, in lieu of 15 days leave. A Madras factory paid bonus amounting to half month's wages in 1944, to those who had completed six months' service and equal to one month's wages to those who had completed one year's service. The payment of bonus is generally dependent on the accrual of profits to the factory. No allowances, other than the bonus and dearness allowance, were paid in any except a Punjab factory, which paid a " Special Allowance " to workers who had a minimum 20 days' attendance a month.

Overtime.—In eighteen concerns, overtime is normally worked, though only in about five concerns it seems to be compulsory, the latter having undertaken important and urgent work for the Defence Services. Compulsion, however, seems to be unnecessary, because the workers, who are mostly daily-rated, are willing to work overtime for extra remuneration. A scrutiny of pay rolls in Bengal showed that though the standard hours of work per week were only 45-1|2, the average weekly hours worked in the concerns investigated aggregated to 58, one of the workers working for as much as 81 hours in a week ! The workers in a Bengal concern complained that only a selected few among them were allowed to work overtime. Whenever overtime is worked, it is paid

according to the provisions of the Factories Act. Hours worked in excess of the scheduled hours of work are treated as overtime and paid for at one and a quarter or one and a half times the normal rate. In three concerns, hours worked in excess of normal time, *i.e.*, 8 hours on week days and 4-1|2 hours on Saturdays, are treated as overtime and are paid for at one and a half times the usual rate. Hours worked on all Bank Holidays are also considered as overtime. Overtime in all the factories is recorded either in registers or on Time or Clock Cards and these records are open to workers for inspection.

Deductions and Fines.—Deductions from wages (apart from fines) are made only in seven concerns for damage or loss, breach of contract, subscription towards Provident Fund, realisation of advances made against wages and cost of foodgrains supplied. Fines are imposed only in six concerns, of which four are in Bengal, for failure to observe safety instructions, unauthorised removal or damage to machinery-guards and other safety devices, conduct endangering the safety of other workers, acts and omission of an insubordinate nature, careless or bad work that lowers the quality of the goods manufactured or reduces production, bad time-keeping, quarelling, fighting or causing disturbance among the other workers, acts of extortion, etc. The amounts outstanding in the Fine Funds of the two concerns (one in Bombay and one in Madras) were Rs. 1,153-12-6 and Rs. 85-1-0 respectively on 1-10-1944. The former factory intends to utilise its Fund for purchasing equipment for supply of cool water to workmen. In all cases, the Fine Fund is in the charge of the Management and is intended to be used for the welfare of the workers.

Wage-period.—The following figures relate to wage-periods adopted in the concerns investigated.

TABLE 183.

Wage Period.

Province	Monthly	Fortnightly	Weekly	Total
Madras	3	..	..	3
Bombay	6	..	..	6
Bengal	3	2	2	7
Punjab	2	..	1	3
U. P.	1	..	..	1

The payment is generally made seven days after the end of the wage-period ; concerns employing more than 1,000 workers, however, make the payment on or before the 10th of the month following.

Holidays.—Some recommendations in this respect have been made by the Motor Traders Association (Bombay) and Motor Industries Association (Bengal). Sundays are generally regular holidays, but the workshops are closed on other public holidays, notified by each concern. The number of these additional holidays varies from factory to factory. One of the Bombay concerns, for example, grants six full additional holidays, twelve half-holidays (*i.e.*, closure at 12-30 p.m.) and eleven quarter holidays, (*i.e.*, closure at 3 p.m or 4 p.m.). In two other Bombay concerns all the Bank holidays are granted in addition to Sundays. In one concern in Bombay, however, only one day off

is given every week to all the staff by rotation. In Bengal, one concern gives sectional holidays. A number of concerns observe Saturdays as half-holidays.

It seems, however, that except in Bengal, daily-rated workers are given holidays without pay. Paid holidays in Bengal vary from 6 to 19 days in a year, the average of seven concerns being 15 days. The companies require that to earn the right of holidays with pay, a worker must have completed service of a specified number of years (varying from 1 to 3). Leave rules in Bombay and Bengal are independent of the holidays mentioned above. In Bombay, the privilege leave and the casual leave amount generally to two weeks and one week respectively, while in Bengal the casual or sick leave extends from 7 to 14 days with or without pay.

III —Working Conditions.

Shifts and Hours of Work.—The following table gives information in regard to shift, rest-intervals, and spreadover, in the concerns visited :—

TABLE 184.

Shifts and Hours of Work.

Nature of general shift			No. of such shifts in investigated factories in				
Actual hours of work	Rest interval	Spread over	Madras	Bombay	Bengal	Punjab	U. P.
5	1	6	..	1	..	..	..
7½	½	8	..	..	..	..	1
8	½	8½	..	1	3	..	..
8	1	9	1	5	5	..	..
8½	½	9	2	..	..	..	..
8½	1	9½	1	..	..	2	..
9	1	10	..	2	..	1	..
Total	Day shifts	..	3	7	7	3	1
	Night shifts	..	1	2	1	..	..
Total all shifts	..	..	4	9	8	3	1

Besides these general shifts, a few concerns have separate shifts for some classes of workers. In a Madras factory, for example, besides the general day shift, there are two shifts for blacksmiths, two for machine shops and three for welders ; all, except one, having each a spreadover of 8 hours with half an hour's interval. The remaining one works for 9 hours and has a rest interval of half an hour. This arrangement was found necessary because of a shortage of machinery. The U. P. factory changes its hours of work in winter. Six factories (two each in Madras, Bombay and Calcutta) work Saturday as a half-day and the hours of work are 4-1|2 in four factories and 5-1|2 and 6 in the remaining two factories. As seen above, almost all these factories work overtime, which increases the number of hours actually worked. Overlapping of shifts was found only in two factories, one in Bombay and one in Calcutta. The Bombay factory has three shifts, (i) 8-30 a.m. to 5-30 p.m. ; (ii) 2-30 p.m.

to 8-30 p.m. ; and (iii) 11-30 p.m. to 8-30 a.m. ; the Calcutta factory works two shifts, (i) 6 a.m. to 2-30 p.m. and (ii) 10 a.m. to 6-30 p.m. These overlapping shifts, however, are worked by different sets of workers. Rest interval is usually of half or one hour. One Bengal concern grants 2 half-hour intervals, one in the morning and the other in the evening, and in addition, 10 minutes for tea from 4 p.m. to 4-10 p.m.

Ventilation, Lighting, Congestion, Flooring, Protection against Heat, etc.—Work in this industry is usually carried on in open or in big sheds where motor trucks or lorries are kept. The nature of work itself, therefore, guarantees ventilation, natural lighting and ample floor area per worker. Evils like overcrowding and heat are restricted to the machineshop, smithy and tinker's shop. In some cases workers have to work in the open under the Sun. No special steps seem to have been taken to protect workers against heat.

Shelters.—Only five factories (3 in Madras and 2 in Bombay) have built shelters for their workmen. One more factory in Bombay had built a large shelter, but it had to be converted into a dispensary. The Madras shelters are merely sheds with paved floors and corrugated iron roofs. One of the two Bombay shelters is about 40 ft. × 20 ft. in dimensions and has asbestos cement roofing.

IV.—Welfare Activities.

Latrines, Urinals and Water-supply.—The conditions of latrines and urinals were found to be unsatisfactory in most of the concerns. The following figures reveal the inadequacy of sanitary arrangements.

TABLE 185.

Latrines and Urinals.

Province	No. of concerns	Average No. of workers	No. of latrines	No. of urinals	No. of workers using one latrine
Bombay	4	1,705	67	8	25
Bengal	6	2,494	37	23	67
Punjab	2	161	14	..	12
U. P.	1	74	2	..	37

The number of persons using one latrine varied from 13 to 31 in Bombay factories and from 9 to 161 in Bengal factories. Besides, latrines in many of these factories were found to be unclean and generally unfit for use, service was inefficient and irregular and the employers seemed to disregard sanitation altogether.

Water supply is satisfactory. Generally taps are used and in a few cases water is stored in reservoirs. Bath rooms are rare but workers utilise the water taps either for this purpose or for washing their hands. Drinking water is generally supplied through water taps. Sometimes earthen pots or *chatties* are used for this purpose.

Medical Aid.—Arrangements about medical relief are wholly inadequate in this industry. Only one out of the twenty factories investigated maintains a dispensary ; four factories employ doctors, two of whom were part-time and

one factory has a *ward*. The remaining fourteen factories out of which seven are in Bengal, make provision only for First Aid Boxes. The dispensary in the Bombay factory has two qualified medical officers (one is a L.C.P. and the other is D.O.M.S.) and caters for more than 6,000 workers. Serious cases are sent to public hospitals. None of the factories conducts periodical medical examination of the workers.

Canteens, Creches, and Education.—Only three concerns (all in Bombay) have made provision regarding canteens. Two of these are run by contractors, while the third is run by the Company. Only tea and light refreshments are provided. Two concerns (one in Bombay and one in Calcutta) have made arrangements with contractors for the supply of tea both in the morning and evening at the rate of 6 pies per cup. Another Calcutta factory has made arrangements to supply workers with tea, puri and vegetable curry, free of charge, the estimated cost of each tiffin being four annas. None of the factories maintains a creche, because of the absence of female labour in this industry. No facilities have been offered for the education of the workers and their children by any of the factories investigated.

Grainshops.—Eight factories (one in Madras, four in Bombay, two in Bengal and one in U.P.) maintain grain shops, most of which are ration shops, selling grains at Government controlled rates. The commodities usually supplied are wheat, rice, jowar, bajri, sugar and dal. In some of these shops non-rationed articles like soaps, vegetables, ghee, tea, match boxes, etc., are also sold at or slightly below the market rates.

V.—Housing.

None of the factories has provided any housing accommodation to workers, the reasons given being shortage of land in the urban area, where most of the factories are situated and the unusual and sudden expansion in the number of employees. Workers make their own arrangements in this respect and live either in their own huts or in tenements provided by private landlords or public bodies. Owing to the present shortage of accommodation in the urban localities, congestion is inevitable and the conditions under which many workers live are extremely unsatisfactory.

VI.—Trade Unions and Strikes.

Trade Unions.—Workers in this industry on the whole are not very well organised. The names of six unions, most of which are in a state of moribund inactivity, were reported. Out of these, the Madras Union which is a 'Welfare Union' for the workers of one of the factories seems to be a Company Union. Its subjects are to regulate the relations between the employer and the workers, to conduct negotiations regarding grievances of workers and to organise some welfare activities. Outsiders are excluded from the executive of the Union and a strike cannot be started without a notice of 15 days, preceded by a ballot in which at least two-thirds of the members are in favour of the strike. The membership fee of the union is an anna per month, collected by the Time Office and there are 1,520 members at present. The Bombay Labour Gazette makes mention of two Trade Unions in this industry. The General Motor Workers Union was formed in March 1939 and claimed 2,500 members in December 1941. However, most of its leaders, who belonged to the Congress Socialist Party, were arrested in 1942 and the Union was dissolved automatically due to its failure to submit annual returns. The other union, the suburban Bus Workers Union, is unregistered, and was established in November 1943. It claims about 200 members. General unions in the Bombay Engineering Industry such as the Engineering Workers' Union or the Engineering

Factory Kamgar Union, have hardly taken any interest in this branch of engineering. Bengal has three unions. Allen Berry and Co. Workers' Union, French Motor Vehicles Workers' Union and Calcutta Corporation Motor Vehicles Workers' Union. It is interesting to note that all these unions originated as strikes committees. The subscription of the last is 4 as. a month and Rs. 2 a year.

Works Committees.—Only three committees, one in Bombay and two in Calcutta, were formed. In Bombay the Labour Relations Officer of the factory consults the committee and deals with all matters normally assigned to a trade union. One of the Works Committees in the Calcutta Factory has eleven members, four from management and seven from workers elected from various departments. Its constitution is attached in Appendix VI.

Strikes.— In 1942, seven strikes were waged by workers in the concerns investigated. Of these, four were conducted in Bengal involving approximately 800 workers for bonus, permanence of service, dearness allowance and Provident Fund facilities. In one case the number of mandays lost amounted to 12,000. In most of the cases the demand of workers were met. A Madras concern experienced two strikes, one in 1940 and another in 1942. The first was due to the refusal of the Management to give a holiday on 13th June 1940. The Union demanded dearness allowance at Rs. 2 p.m., one and a half times usual wages for night-shift workers and full day's wages for 13th June 1940. The strike was unsuccessful and was called off unconditionally on 18th June 1940. The second strike which began on the 14th April 1942 was in connection with an ' evacuation bonus ' and this too was unsuccessful. In Bombay, 146 workers of one of the concerns staged a walk-out refusing to work on a Saturday afternoon in May 1941. The Company declared a ' lock-out ' and discharged all the strikers. Another factory in Bombay experienced in 1942 two strikes each of three week's duration. The grievances of workers in the first case were referred to arbitration.

VII.—General.

Accidents and Occupational Diseases.—Accidents seem to be common in this industry because of the complex and technical nature of work. The following figures show the extent of accidents in 1943 in some of the concerns investigated :—

TABLE 186.

Accidents.

Province	Concern	Total No. of accidents	No. of accidents for which compensation was paid	Amount of compensation
				Rs. A. P.
Madras	I	63	32	373 6 0
	II	120	13	101 10 0
Bombay	I	9	6	197 1 0
	II	223	117	2,076 12 0
Bengal	I	248	40	731 4 0
	II	108	29	732 6 0
	III	9	6	1,713 10 3
	IV	12	3	52 6 0
	V	1	1	15 0 0
	VI	3	..	..
Punjab	I	10	10	512 6 0

Barring two other Bombay factories, accidents have not taken place in other concerns. In one of these two Bombay factories, 1,710 injury cases were treated and compensation paid in 1943 amounted to Rs. 30,581-15-0. In the other factory two accidents took place in 1943. A worker who was hit on the head remained absent for 15 days while another, who was hit by a tyre falling on him, was absent for about two months. In both cases wages in full were paid for the period of absence. Generally, accidents in this industry are of the nature of bruise, sprain or strain, cut or laceration, dislocation and foreign substance in eye. Occupational diseases have not been reported by any of the concerns. The workers, however, are exposed to some diseases while engaged in nickel plating and spray pacing work. Affection of eye is also a common disease in the welding and hammering departments, but it can be prevented if goggles are used. Similarly, masks should be worn by spray-painters.

Indebtedness.—Only three concerns (two in Bombay and one in Calcutta) have got Co-operative Societies, which give loans to their members. In a few other cases, workers get loans from their employers, with or without interest and such loans are recovered by a monthly deduction in wages. The following figures give the extent of such indebtedness in 1943 in some concerns :—

TABLE 187.

Indebtedness.

Province	Concern	Loan given by	No. of workers employed	Amount of loan	Interest charged
				Rs.	
Bengal	I	Company ..	1,237	40,000	2%
	II	Co-operative Credit Society.	450	4,688	9-3/8 %
	III	Company ..	115	3,406	12%
	IV	Company ..	19	55	*Nil*
Bombay	V	Co-operative Credit Society (membership 113).	1,250	Not available.	4%

A few concerns give advances to workers against wages earned or against Provident Fund. These advances are without interest and usually do not exceed the amount of a month's wages.

Provident Fund and Gratuities.—Only five factories, three of which are branches of one concern, have maintained a Provident Fund. Rules are generally common and differ only slightly in details about the rate of subscription,

period of service to be eligible to membership and conditions to claim companies' full contribution. The following table illustrates these details :—

TABLE 188.

Provident Fund.

Province	Concern	Monthly contribution of the worker	Period of service for eligibility to membership	Conditions to get Company's *full* contribution after termination of service
Madras ..	I	Up to one anna in each rupee of wages.	*Nil*	5 years' continuous service.
	II*	Between 1% and 10% of monthly wages.	3 months continuous employment	10 years' continuous service or earlier discharge without the worker's fault
Bombay ..	I*			
Bengal ..	I*	"		
	II	6 piés to one anna in each rupee of wages.	1 year's continuous service.	20 years' continuous service.

* These three factories are branches of one concern.

† In this concern a worker after the termination of his service gets his Fund according to the following scale :—

If he shall serve for a period of :—

(*i*) Less than 5 years' of continuous service .. *Nil*

(*ii*) Five complete years of continuous service and for each complete further year of continuous service. — ¼th of such remaining sum. a further 1/20th of such remaining sum.

(*iii*) Exceeding 20 complete years of continuous service. — the whole of such remaining sum.

In all cases the employer contributes to the Fund a sum equal to the aggregate amount of the contributions of members and the whole amount is invested by the trustees of the Fund according to the rules pertaining to Provident Fund laid down by the Government of India. The net income arising out of the investment of the funds after meeting expenses, losses, etc., is to be credited to each member's account in the same proportion as the member's annual contribution to the total contribution. The member gets the total amount to his credit (including his employer's contributions) when he retires after a specified period's approved continuous service or if he is discharged earlier for reduction of staff and for such other causes on which he has no control. If he dies, his dependents are paid the amount standing to the credit of the deceased.

A system similar to Provident Fund is in force in one of the Bombay factories and is known as " Workers' Discontinuance of Employment Fund ". The entire cost of contribution and expenses of the Fund are borne by the Company. For every 2,000 hours of actual work, 90 hours are credited to the workman's account. The total of all the hours thus credited is paid to him (*a*) if after having 30,000 hours of actual work with the Company he wishes to leave, (*b*) if he is discharged by the Company without any fault on his part or, (*c*) if he leaves the Company's service because of old age or sickness contracted through no fault of his own. The payment will be calculated at the rate of pay the workman is receiving when he leaves. A worker dismissed for misconduct losses all benefits under the plan.

Only two factories have adopted the system of gratuity. One of the Bombay factories has an arrangement under which a worker gets one month's pay for each year's service after 15 years or more. A Bengal factory pays gratuity to the widow, eldest son and parents of the worker on the following basis : (i) 6 months' pay for 10 to 20 years' service, and (ii) 12 months' pay for service over 20 years. The Company is also giving pensions to 5 workers, the total amount payable per month being Rs. 140.

CHAPTER VI.—KEROSENE TINNING AND PACKING.

Kerosene tinning and packing, like other sections of the engineering industry, developed considerably during the years of war. Employment in this branch has nearly doubled compared to that in pre-war days. The following table shows the increase in employment in the tinning and packing factories since 1939 :—

TABLE 189.

Number of Factories and Number of Workers Employed.

Province	1939		1940		1941		1942		1943	
	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers
Madras ..	7	659	7	688	..	667	9	655	10	806
Bombay ..	8	1,446	10	1,549	..	1,651	11	2,662	11	3,799
Sind ..	5	790	5	743	..	802	5	917	7	1,195
Bengal ..	12	2,778	13	2,705	..	2,638	12	2,876	15	3,906
Assam ..	1	51	1	47	..	..	..	..	..	..
Total ..	33	5,724	36	5,732	34	5,758	37	7,110	43	9,706

Factories are located in the cities of Bombay, Karachi, Calcutta and Madras and their suburbs. The Assam Oil Company has a factory at Tinsukia. The manufacturing of tins and their filling and soldering are the main types of work carried on in these factories. These call for the employment of a considerable number of skilled men such as fitters, turners, welders, etc. The enquiry was confined to Bombay where three units representing the three principal companies in India were covered. The units selected were (1) Burmah-Shell Oil Storage and Distributing Co. of India, Sewree, Bombay ; (2) Caltex (India) Ltd., Bombay, and (3) Standard Vacuum Oil Co., Bombay. As most of the Kerosene Tinning Factories in India are owned by these three Companies, the survey of labour conditions in the selected factories may be taken to be more or less representative of the conditions in the industry.

I.—Employment.

Employment in the sampled units increased by 147 per cent. during war-time as will be seen from the following table :—

TABLE 190.

Number of Workers in Sampled Units.

Factory	August 1939	January 1944
Burmah-Shell	1,250	2,600
Caltex	216	337
Standard Vacuum	235	1,259
Total ..	1,701	4,196

All the workers are time-rated and are employed and paid directly. Only in the Caltex Company are a few workers (32 in January 1944) employed through contractors. Even there they are paid directly by the Company.

The Burmah-Shell and the Standard Vacuum Companies employ a few women as sweepers or coolies but children are employed nowhere.

Classification of Workers.—Workers are classified as permanent and temporary. Permanent workers form the bulk, being 90 per cent. in Burmah-Shell, 94 per cent. in Caltex and 96 per cent. in the Standard Vacuum Company. Permanent workers who have completed one year's continuous service are granted in all concerns 17 days' privilege leave which can be accumulated to a maximum of 51 days. They are also given 7 days' sick leave on full pay every year. Workers with over 10 years' service are given sick leave on full pay in excess of 7 days, if necessary. Permanent workers in Burmah-Shell are entitled to join the Company's Provident Fund while the Caltex Company has a scheme of Death and Disability Benefits for its permanent employees. Those employees who are not entitled to the Death and Disability Benefits are given Special Termination Allowance if their employment is terminated by the Company through no fault of theirs. Probationers who are put against permanent vacancies and have to serve a period of three months' probation and workers engaged on temporary jobs are treated as temporary workers. They do not enjoy any of the privileges of permanent workers except free medical treatment. In the Caltex Company temporary workers do not even get payment for work on Sundays at time and a half, which is given to permanent workers.

Length of Service.—The length of service of workers in the three sampled units is shown in the following table :—

TABLE 191.

Length of Service of Workers, 1944.

Length of Service	Burmah-Shell	Caltex	Standard Vacuum	Total No. of workers	Per cent of total
	No. of workers	No. of workers	No. of workers		
Between 0 to 1 year ..	343	69	310	722	17·1
Between 1 and 5 years ..	1,252	185	863	2,300	54·4
Between 5 and 10 years ..	591	45	39	675	15·9
Over 10 years	414	6	114	534	12·6

It may appear strange that in an industry where about 95 per cent. of the workers are considered permanent only less than 30 per cent. of them have over 5 years of service ; but then, the industry has largely expanded during the last five years.

Apprenticeship.—Both the Burmah-Shell and the Caltex Companies have the system of apprenticeship. In Burmah-Shell, the apprenticeship period is five years. After three years of apprenticeship, if the apprentices are found fit they are graded for supervisory post and finish two more years of training but if they are not found fit to be so graded, they finish another year of training and become ordinary fitters or turners. In the Caltex Company, ordinary apprentices are taken in the machine shop. They are paid Re. 1 per day of 8 hours and given an annual increment of 2 annas per day. There is, however, no fixed period of training. In both the concerns, the period of apprenticeship is counted towards service.

Graded or Time-scale Promotion.—Workers are graded only in the Caltex and the Standard Vacuum Companies. The Burmah-Shell Company grant regular increments to their employees. In accordance with the Adjudicator's Award of 6th October, 1942, the Caltex Company fixed minimum and maximum rates of pay for different types of workers with regular annual increments of 1 to 2 annas for unskilled and semi-skilled workers and 3 to 5 annas for skilled men and artisans. In the Standard Vacuum Company, the maximum rate in each grade is reached in 8 years by 8 annual increments.

Labour Turnover.—The following table shows the labour turnover in the sampled units :—

Labour Turnover in Sampled Units.

TABLE 192.

Factory	1939						1943						1944					
	Average No. daily employed	Retirement	Separations Discharge & dismissals	Voluntary	Total separations	Percent of turn-over	Average No. daily employed	Retirement	Discharge & Dismissals	Voluntary	Total seperation	Percent of turn-over	Average No. daily employed	Retirement	Discharge & dismissals	Voluntary	Total separations	Percent of turn-over
Burmah-Shell	1,250	14	33	84	131	10·5*	2500	11	74	75	160	6·4*	..	..	..	..	..	..
Caltex	..	..	..	..	..	..	263	..	1	33	34	12·9	290	1	..	47	48	16·5
Standard-Vacuum (Sewree)	140	Not available			..	..	..	..	..	..	..	..	546	..	30	38	68	12·4
Standard-Vacuum (Wadala)	57	..	58	..	58	101·7	408	..	101	..	101	24·8	..	..	..	..	..	..
Total ..	1,307	14	91	84	189	14·5	3,171	11	176	108	295	9·3	836	1	30	85	116	13·9

* In the Burmah-Shell factory temporary workers, 410 in 1939 and 250 in 1943, were engaged at times during the year and paid off when work slackened. They are not taken into account in working out the above figures for turnover. If, however, these are included the percentage turn-over is 43·3 for 1939 and 16·4 for 1943 in the case of Burma-Shell and 45·8 and 17·2 respectively of the total.

The main causes of labour turnover are the migration of some workers to agriculture and of some others to concerns paying better wages. Cases of dismissal of workers for misconduct are rare. Many, however, are discharged from time to time, especially the temporary workers.

Absenteeism.—Percentage of absenteeism in the selected factories in 1939 and 1943 was as follows :—

TABLE 193.

Absenteeism in Sampled Units.

Factory	Percentage of Absenteeism	
	1939	1943
Burmah-Shell	2·5	4·0
Caltex	..	3·3
Standard Vacuum	19·0	22·0

The causes of absenteeism are sickness, domestic difficulties, such as illness in the family, and the need for rest. The Caltex Company attributes absenteeism to the increased earnings during war time. Punitive measures and even discharge in the case of chronic absentees have been suggested to reduce absenteeism.

Recruitment and Labour Officers.—Unskilled workers are selected from amongst those seeking employment at the gates of factories. In the Burmah-Shell factory, selection is made by the Labour Officer and preference is given to former temporary workers in the factory. In the Caltex factory, selected workers have to undergo a medical test. The Burmah-Shell factory obtain skilled workers through the National Service Labour Tribunal. Other factories recruit their skilled men directly on the strength of testimonials, if any, or after testing suitability and fitness for the job. Standing orders relating to hours of work, privilege and sick leave to permanent and temporary workers, rates and payment of wages, suspension and dismissal of workers, etc., are maintained in all the three concerns and are displayed at conspicuous places. Only in the Burmah-Shell Company is there a labour officer to enquire into the grievances of the workers. In the other factories the Terminal or Installation Superintendent deals with complaints.

II.—Wages and Earnings.

The following are the rates of wages for different categories of workers in the three sampled units :—

TABLE 194.

Rates of Wages for Different Occupations—1944.

Name of the occupation	Burmah-Shell		Caltex		Standard Vacuum	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
	Rs. as p.	Rs. as. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a p.
Coolies—Women	0 12 0	1 2 0	..	..	0 12 0	1 2 0
Coolies—Boys	0 12 0	1 0 0	..	..	0 12 0	1 0 0
Apprentices	1 0 0	2 0 0	1 0 0	2 0 0	..	..
Cleaners	1 0 0	1 8 0	1 0 0	1 8 0	1 0 0	1 8 0
Coolies—Men	1 0 0	1 8 0	1 0 0	1 8 0	1 0 0	1 8 0
Asstt. Carpenters	1 0 0	1 8 0	..	..	1 0 0	1 8 0
Asstt. Fitters	1 0 0	1 8 0	1 0 0	1 8 0	1 0 0	1 8 0
Asstt. Turners	1 0 0	1 8 0	..	..	1 0 0	1 8 0
Fillers or Filling Operators	1 2 0	1 10 0	1 2 0	1 10 0	1 2 0	1 10 0
Examiners	1 2 0	1 10 0	1 2 0	1 10 0	..	..
Testers	1 2 0	1 10 0	..	..	1 2 0	1 10 0
Filling Machine Operators	1 2 0	1 10 0	..	..	..	..
Furnacemen (Bolt heating)	1 2 0	1 10 0	..	..	1 2 0	1 10 0
Machine men (others)	1 2 0	1 10 0	1 2 0	1 10 0	1 2 0	1 10 0
Solderm kers	1 2 0	1 10 0	..	..	1 2 0	1 10 0
Oilers, Peltmen	1 2 0	1 12 0	..	..	1 2 0	1 12 0
Horn press men	1 3 0	1 11 0	1 3 0	1 11 0	1 3 0	1 11 0
Stencillers	1 4 0	1 12 0	1 4 0	1 12 0	1 4 0	1 12 0
Hammermen	1 4 0	1 12 0	..	..	1 4 0	1 12 0
Holders	1 4 0	1 12 0	..	..	1 4 0	1 12 0
Coopers	1 4 0	1 12 0	1 4 0	1 12 0	1 4 0	1 12 0
Tallymen	1 4 0	1 14 0	..	..	1 4 0	1 14 0
Packers	1 4 0	1 12 0	..	..	1 4 0	1 12 0
Solderman/Solder machine operators.	1 4 6	1 13 0	1 4 6	1 13 0	1 4 6	1 13 0
Squeezers	1 4 6	1 12 6	..	..	1 4 6	1 12 9
Firemen	1 6 0	1 14 0	..	..	1 6 0	1 14 0
Tankwagon fitters	1 8 0	2 2 0	..	..	1 8 0	2 2 0
Tank Measurers	1 8 0	2 2 0	1 8 0	2 2 0	1 8 0	2 2 0
Rivetters, Boilermakers, Caulkers	1 8 0	3 8 0	..	..	1 8 0	3 8 0
Blacksmiths	1 8 0	4 0 0	1 8 0	4 0 0	1 8 0	4 0 0
Tinsmiths	1 8 0	3 8 0	1 8 0	3 8 0	1 8 0	3 8 0
Carpenters	1 8 0	4 0 0	1 8 0	4 0 0	1 8 0	4 0 0
Turners	1 8 0	4 0 0	1 8 0	4 0 0	1 8 0	4 0 0
Fitters	1 8 0	3 8 0	..	..	1 8 0	3 8 0
Engine-drivers	1 8 0	3 8 0	1 8 0	3 8 0	1 8 0	3 8 0
Painters	1 8 0	3 2 0	1 8 0	3 2 0	1 8 0	3 2 0
Muccadums/Overseers	1 10 0	3 0 0	1 10 0	3 0 0	1 10 0	3 0 0
Wiremen	2 0 0	4 0 0	2 0 0	4 0 0	2 0 0	4 0 0
Masons	2 0 0	3 8 0	2 0 0	3 8 0	2 0 0	3 8 0
Pump Drivers	2 8 0	5 0 0	..	..	2 8 0	5 0 0
Spray Painters	2 8 0	3 10 0	..	..	2 8 0	5 0 0
Welders	2 8 0	5 0 0	2 8 0	5 0 0	2 8 0	5 0 0
Trade Learners	1 0 0	2 0 0	..	..	..	..
A.R.P. Crew	..	..	1 0 0	1 8 0	..	..
Asstt. Painters	..	..	1 0 0	1 8 0	1 0 0	1 8 0
Boiler Attendants	..	..	2 0 0	3 0 0	..	..
Milling Machine Operators	..	..	..	..	1 8 0	5 0 0
Die engravers	..	..	..	..	1 8 0	5 0 0

The rates of wages for the same occupations are same in all the three concerns. There has been no change in the basic wages of operatives since 1939 but the schedule of Minimum|Maximum rates has been introduced from 1st January 1943.

In the Caltex factory, which alone employs contract labour, the rates for contract labour are higher than for those directly employed but do not exceed the maximum of the scale for similar occupations. They do not, however, get any dearness allowance.

The rates paid by other industries in Bombay for similar classes and types of labour were considered while determining the rates of wages to be paid in these concerns. The Adjudicator's Award of 6th October 1942 in respect of the Trade Dispute in the Caltex and Standard Vacuum Companies, recommended the adoption of graded scales of pay, the scale being fixed in such a manner as to enable the employees to reach the maximum in 8 years. This has since been done.

Dearness Allowance, Bonus and Overtime.—A dearness allowance of Rs. 3 per month was granted to the workers in the Burmah-Shell and Caltex Companies from 1st January 1940 and 1st April 1940 respectively which was raised to Rs. 5 per mensem on 1st July 1941 and 1st January 1941 respectively. Subsequently both the companies brought their dearness allowance in conformity with the Bombay Millowners' Association scales. The dearness allowance in the Standard-Vacuum Company was based on the cost of Living Index from the very start. In July 1944 the dearness allowance was Rs. 1-3-0 per day. In the Burmah-Shell Company absence of more than 4 days in a month disqualifies a worker for full rate of dearness allowance. Dearness allowance is generally not granted for periods in which the worker is on sick or privilege leave or gets compensation under the Workmen's Compensation Act and for days of absence without leave. On October 6, 1942 in respect of the Trade Dispute in the Caltex and Standard Vacuum Companies, the Adjudicator awarded a bonus of one-twelfth of the total earnings (excluding dearness allowance) received by each workman of the company during the whole of the year. Accordingly all the three concerns give a bonus of 1|12th of all earnings in a year from the 1st January 1942. Work in excess of 8-1|2 hours on weekdays and 5-1|2 hours on Saturdays is paid for at 1-1|2 times the ordinary rate of pay. Overtime work is compulsory in the Burmah-Shell and Standard-Vacuum factories, while in the Caltex Company, it is said that, so far no worker has refused to work overtime. Overtime is recorded in the muster roll or the time card of the worker and is open to inspection.

Deductions and Fines.—In the Burmah-Shell Company deductions from wages are made on account of advances, loans and grainshop and teashop bills but no fines are imposed. Fines were levied formerly and an amount of Rs. 2,000 is now outstanding in the Fine Fund and is utilised as a loan Fund advancing money without interest to workers. The Fund is administered by a Committee consisting of the Assistant Branch Manager, the Branch Accountant and the Labour Officer. In the Caltex and the Standard Vacuum factories no deductions are made from wages nor are fines imposed.

Miscellaneous.—All workers are paid on the 7th of each month. In the Burmah-Shell Company, however, monthly-rated workers are paid on the last day of the month. The factories are closed on Sundays and other recognised holidays and festivals. Only permanent workers are paid for festival holidays.

III.—Working Conditions.

Shifts and Hours of work.—In the Burmah-Shell and the Caltex Companies only one shift is now worked. From February 1942 to October 1944, however, a night shift was also worked in Burmah-Shell. The Standard-Vacuum Company works a double shift in its Sewree factory and in addition to a general shift has three shifts of 8 hours each for the drum plant in its Wadala factory. The following are the actual hours of work in the factories.

TABLE 195.

Hours of Work in Sompled Units.

Factory.	Working Hours	Rest interval	Total Hours	Spreadover (Hours)
Burmah-Shell	8 a.m. to 5-30 p.m.	12-30 p.m. to 1-30 p.m.	8½	9½
Caltex	8 a.m. to 7 p.m.	12-30 p.m. to 1-30 p.m.	10	11
Standard-Vacuum—				
Sewree—				
Day shift	8 a.m. to 5-30 p.m.	12 p.m. to 1-20 p.m.	8	9½
Night shift	8-30 p.m. to 5-30 a.m.	12-30 a.m. to 1-30 a.m.	8	9
Wadala—				
1st shift ..	6 a.m. to 2 p.m.	....	8	8
2nd shift ..	2 p.m. to 10 p.m.	....	8	8
3rd shift	10 p.m. to 6 a.m.	....	8	8
General shift	8 a.m. to 5-30 p.m.	12 p.m. to 1-30 p.m.	8	9½

Normally the shift in the Caltex Company closes at 5.30 p.m. which makes the working day of 8-1|2 hours duration with a spreadover of 9-1|2 hours. Occasionally departments which may have urgent work continue after 5.30 p.m. but close before 7. Overtime is paid for work beyond 5.30 p.m. On Saturdays only 5-1|2 hours are worked in the Burmah-Shell and Caltex factories. Shifts overlap only in the case of the Watch and Ward Staff of the Standard-Vacuum Company.

Ventilation and Lighting.—In all the factories arrangements for lighting and ventilation are quite satisfactory. In the tin factories and soldering sheds of the Burmah-Shell Company there are exhaust fans, Robertson ventilators and plenty of expanded metal windows. The floors are stone paved in all the factories and roofs are of asbestos generally. There is not much congestion anywhere.

Rest Shelters.—Rest shelters are provided only by the Burmah-Shell Company. In their Kerosene Installations a large open tiffin room, 60 ft. × 30 ft. partitioned into two for use by Hindus and Muslims is provided. The roofing is of asbestos. Steel tables and benches are also provided. In their Benzine Installation, a tea room, 30 ft. × 25 ft., with wooden benches is provided. In Wadi Bunder there are two small tea rooms. The majority of workers, however, go home for midday meals or prefer resting and eating in the open under the shades of trees. In the other factories workers rest in the vacant portions of the factory or the godown or under trees.

Sanitary arrangements, etc.—Adequate latrines of the flush type are provided in all the factories. The Burmah-Shell Company and the Standard-Vacuum Company provide separate urinals as well. Water from the Municipal mains is available in the factory compound where an adequate number of taps are provided. These taps provide drinking water and serve for washing purposes. The Standard-Vacuum Company provides earthen pots for storing cool water in summer. At the Benzene Installations of the Burmah-Shell Company cubicles with showers are provided for the workers to bathe.

IV.—Welfare Activities.

Medical facilities.—Free medical aid is available to workers in all the factories. The Burmah-Shell and the Caltex Companies extend free medical attention to the workers' families also. The Burmah-Shell Company has three dispensaries, at the three main Installations, in charge of two qualified doctors one of whom attends to the workers while the other attends to their families. The other companies have a dispensary each both under qualified doctors. About 240 cases are treated daily in the Burmah-Shell dispensaries and 20 in the Caltex dispensary. The common ailments are malaria, influenza, dysentery, bronchitis, fever, cold etc. None of the diseases of the workers can be called occupational. In the Caltex factory persons handling gasolene are examined every four months. In the Burmah-Shell and Caltex Companies the workers are medically examined before engagement.

Canteens and Grainshops.—Only the Burmah-Shell Company provides a proper canteen for the benefit of their workers. The canteen is owned and managed by the company and supplies tea, light foodstuffs, milk and aerated waters at prices below ordinary market rates. In the other two companies tea-shops or small scale restaurants are run by outsiders. All the concerns maintain grainshops where rationed articles like rice, wheat, Bajri, sugar etc. and other articles like dal, soap etc. are sold at controlled rates.

Schools and creches.—No facilities art provided in any factory for the education of workers or their children. Only a small number of women are employed and the absence of creches is not felt.

V.—Housing.

The companies provide housing accommodation only to watchmen. Such accommodation generally consists of barrack-quarters where two watchmen share a single room. These quarters are on the premises of the factories. The workers generally live in the city in chawls or in the suburbs.

VI.—Trade Unions and Strikes.

The National Oil Workers Union, Bombay, was formed in February 1940 and registered in July 1942. Nearly 40 per cent of the workers in the Burmah-Shell, 80 per cent in Caltex and some in the Standard-Vacuum Company are members of the union. The monthly subscription is 4 annas. The Union has not been recognised by any of the companies. The Burmah-Shell Company has two Works Committees to run the canteen and the grain-shop. The Committees consist of workmen appointed by the departments and meet periodically. They make suggestions and complaints to the Labour Officer in respect of the running of the Canteen and the grain-shop. There were several strikes in the concerns during war time. The main demands of the workers were for payment of bonus, 26 days' guaranteed pay per month, regular in-

crements. better working conditions, benefit of Provident Fund, increased rations etc. The details of the strikes are given in the following table :—

TABLE 196.

Strikes in Sampled units.

Factory		No. of workers involved	Perod of duration	No. of mandays lost.	Cause of Strike.	Result
Burmah-Shell	1	1,000	25—12—42 to 27—12—42.	3,000	Demand for bonus and 26 days' guaranteed wages per month.	Ended in compromise
	2	2,000	16—1—43 to 19—1—43	3,500	Demand for adequate supply of grain particularly wheat.	Granted.
Caltex ..	1	140	21—1—43 to 22—1—43	140	Protest against inadequate supply of grain.	Demand granted.
Standard Vacuum	1	337	5—3—42 to 12—3—42	1,919	Demand for bonus and termination allowance	Granted.

Besides these strikes, trade disputes in Caltex and the Standard-Vacuum Companies were referred to E. M. Nanavathy, Esquire, I.C.S. (Retired), for adjudication. The following were the main demands granted by the adjudicator's award :—

1. Benefit of the pension and benefit scheme prepared by their Company.

2. Gratuity Scheme.

3. Medical aid as given by the Company.

4. Full pay for absence from work on account of an injury arising from an accident in the course of employment.

5. One-twelfth of the total earnings (excluding dearness allowance) for the year as bonus.

6. Regular classification of employees and the revision of minimum and maximum wages and the fixing of regular annual increments.

VII.—Safety Acts etc.

Provisions of the various protective labour laws are observed in these factories. Inspections are carried out by the Factory Inspector once or twice a year. In the Caltex factory, sections 36 and 42 of the Factories Act were sometimes violated. In December 1940, a few workers were employed for 10-1|2 hours per day although the total weekly hours did not exceed 54. Adverse remarks in regard to the keeping of muster roll, painting of latrines etc., were seen in the Inspection Book. No occupational diseases have been reported so far. In the Caltex factory minor accidents are common in the filling department due to constant contact with kerosene. These are considerably reduced by the application of coconut oil and use of leather or rubber gloves. The following table shows the number of accidents and compensation paid in the three concerns during 1943.

TABLE 197.

Number of Accidents and Compensation paid in 1943.

Factory	No. of accidents	Amount of compensation paid	Remarks.
		Rs. A. P.	
Burmah-Shell	220	9,822 13 8	The accidents were all minor The compensation include Company's *ex gratia* payment.
Caltex	141	1,968 7 3	All minor accidents. This includes full wages for the period of illness.
Standard-Vacuum ..			
Sewree	14		Compensation and full pay and dearness allowance paid till the workers are fit to resume work.
Wadala	15		

VIII.—Indebtedness.

The accounts of the Burmah-Shell Company's Loan Fund and the Co-operative Savings Bank show that only about 12 per cent of the workers are indebted. The largest proportion of the loans are taken by workers, earning Rs. 1-6-0 and over. Loans are generally taken to finance the repair of houses, marriages, etc. In the Caltex and the Standard-Vacuum Companies workers have no facilities for obtaining loans and have to resort to moneylenders for short-term loans paying from 1 to 4 annas per rupee per month as interest.

IX.—Miscellaneous.

Provident Fund.—Only the Burmah-Shell Company has a provident fund which was started in 1929. All permanent employees of the company are eligible to join the fund. Every member of the fund contributes a proportion of his earnings not exceeding 10 per cent. fixed by the company from year to year. The Company contributes an equal amount.

Pension and Gratuities.—The Burmah-Shell Company pays a gratuity of 1|2 month's pay for every year of service up to 20 years before the date of the introduction of the Provident Fund. For service over 20 years it pays gratuity at 1|2 month's pay for every year up to 20 years and 1 month's pay for service beyond 20 years. The Caltex Company has a Death and Disabilities Benefits Scheme under which employees who have been one year or longer in the continuous service of the Company are paid benefits, if totally or permanently disabled. Benefits are paid to the dependents of an employee in case of his death. The amount of benefit is four months' full pay for one year of service and one month's full pay for each complete six months of additional service up to a total of five years' continuous service so that at the end of five years' service an employee or his dependent gets one year's full pay. For over five years service the amount is increased by 5 per cent for every additional year of service. In the same company a special Termination Allowance is paid to workers who are not entitled to the Deaths and Disabilities Benefit. The amount paid varies according to the age and length of service of the worker. It is two weeks' wages for those with one years' service and is graded up to 52 weeks' wages for workers 60 years old and with 20 years' service. The Standard-Vacuum Company grants pension to those workers who have completed at least 20 years' service. The amount of the pension is 1-1|4 per cent. of average annual earnings multiplied by the number of years of service.

CHAPTER VII.—METAL STAMPING.

Metal stamping industries include the manufacture of brass ware, aluminium ware, brass boilers, etc. and the making of nuts and bolts, washers, and similar odd metal works. The industry is mostly confined to the Provinces of Bombay and Bengal as the following table showing the number of metal stamping factories and the number of persons employed therein will amply illustrate :—

TABLE 198.

Number of Factories and Workers Employed.

Province	1939		1940		1941		1942		1943	
	Factories	Workers	Factories	Workers	Factories	Workers	Factories	Workers	Factories	Workers
Bombay ..	50	2,991	55	2,652	..	3,886	58	4,373	64	5,545
Sind	1	32	..	..	..	..	..	..	..	..
Bengal ..	8	1,623	8	1,684	..	2,847	9	3,216	10	3,331
U.P.	1	45	1	42	..	38	1	20	1	22
Total ..	60	4,691	64	4,378	..	6,771	68	7,609	75	8,898

On the whole, employment in the industry has increased by over 60 per cent. during war time although the number of factories has not increased appreciably. Even the increase in employment during the war has not been uniform in all the factories. Those factories that were able to secure war orders have expanded enormously while, on account of non-availability of raw materials and the restrictions and control imposed on metals during the war, many factories were forced to reduce the volume of employment.

Both as regards the number of factories and as regards the number of persons employed, Bombay is the most important Province for the metal stamping industry. Our enquiries, therefore, were confined to Bombay and covered 8 units, 5 in Bombay City, 2 in Poona and one in Sholapur.

The following are the factories included in the sample :—

1. Topiwala Metal Stamping Works, Bombay. (established 1905).
2. Metal Box Co. of India Ltd., Bombay (established 1935).
3. Oriental Metal Pressing Works, Bombay. (established 1918).
4. Messrs. A. B. Tarkar Metal Factory, Bombay. (established 1913).
5. Wolverhamption Works Co. Ltd., Bombay.
6. Deccan Metal Works, Poona. (established 1937).
7. Gujrat Metal Factory, Poona. (established 1904).
8. Shivaji Works, Ltd., Sholapur. (established 1900).

I.—Employment.

The following table shows the number of workers employed in the sampled units in 1939 and 1944 :—

TABLE 199

Number of Workers in Sampled Units.

	Number of workers		
	August 1939	January 1944	October 1944
Men	1,194	2,493	..
Women	26	21	..
Total ..	1,220	2,514	1,402*

*Figures were not available for the largest factory which employed 1,236 workers in January 1944.

Employment in five of these eight factories registered a fall in 1944 as compared to 1939. Nevertheless, total employment in these eight factories increased by 105 per cent., which shows the enormous increase in employment in a few factories engaged on war work. By October 1944, employment increased further. In the seven factories where employment figures for October 1944 were available, the increase was about 10 per cent. as from January 1944. Only three factories employ women and that too in small numbers. They are mostly engaged as sweepers or unskilled workers. Children are not employed in any of the factories. Piece-rate workers are employed only in four factories but the tendency has been lately to employ more on time-rate as will be seen from the following table :—

TABLE 200

Piece-rate and Time-rate Workers in Four Factories.

Category	1939		1944	
	No. of workers	Percent of total	No. of workers	Percent of total
Piece-rate	309	52·6	125	19·2
Time-rate	279	47·4	527	80·8
Total ..	588	100	652	100

Taking into account employment in all the factories, we find that piece-rate workers were 25.3 per cent, of the total in 1939 and only 4.9 per cent. in 1944.

Contract Labour.—Contractor's labour was employed in four factories but like piece-rate workers, contractor's labour is decreasing in the metal stamping industry. The following table shows the extent of contract labour in the four factories :—

TABLE 201

Contractor's Labour in Four Factories.

Nature of employment	1939		1944	
	No. of Workers	Percent of total	Number of workers	Percent of total
Employed and paid directly ..	370	54·9	1,016	91·6
Employed and paid through contractors	304	45·1	93	8·4
Employed through contractors but paid directly	Nil	Nil	Nil	Nil
Total ..	674	100	1,109	100

Length of Service of Operatives.—In spite of the fact that most of the factories were established before 1920, the large majority of workers have less than five year service as is seen from the following table :—

TABLE 202

Length of Service of Operatives.

Service	Per cent of total workers
Between 0 and 1 year	24·0
„ 1 and 5 years	64·2
„ 5 and 10 years	7·1
Over 10 years	4·7

Classification of Workers and Apprenticeship.—In three factories workers are classified as permanent and temporary. Permanent workers form the large majority and have distinctive privileges, such as 15 days' leave with pay and pay on festival holidays. In one of these factories, permanent workers are entitled to 14 days' notice for discharge or 12 days' pay in lieu thereof. In this factory workers have the option of getting 14 days' additional pay if they do not avail of their privilege leave. In two other factories, although there is a classification of the workers as permanent and temporary, permanent workers have no special privileges. There is no system of apprenticeship in any of th

factories except one where a few workers are taken for training for ordinary posts. The period of training is not, however, counted towards service.

Promotions.—There is no system of regular promotions, graded or incremental. Increments are sometimes given at the discretion of the manager either annually or biennially. One concern gives increments even twice in a year to deserving workers. Two concerns have recently adopted regular grades for their workers.

Labour Turnover and Absenteeism.—Figures of labour turnover were available only in five factories. These figures relate to different periods. The average turnover per month has been given in the following tables :—

TABLE 203

Labour Turnover.

Serial No. of factory	Average No. daily employed	Periods to which separations relate	Separations				Percentage of monthly turnover
			Retirement	Discharge or dismissal	Voluntary	Total	
1	92	July 1944 ..	..	..	24	24	26·0
2	147	Oct. 1944 ..	..	..	1	1	0·6
3	1,236	1-1-1944 to 31-8-1944	..	65	187	252	2·5
4	353	1943 ..	..	19	219	238	5·6
5	33	Oct. 1944 ..	..	..	1	1	3·0

Except in one factory, labour turnover is not high. It is seen that dismissals and discharges are not many and that voluntary quits account for most of the turnover. Absenteeism figures were available only in five factories and are shown in the following table. Absenteeism is due mostly to sickness, domestic troubles, marriages, etc.

TABLE 204

Absenteeism.

Serial No. of factory	Period to which absenteeism relates	Total Mandays	Total days of absence	Percentage of Absenteeism
1	August 1944	1,534	206	13·4
2	September 1944	4,125	45	1·1
3	1944	..	..	10·0
4	October 1944	792	56	7·1
5	1944	..	..	20·0

Standing Orders.—Standing orders defining the relations between employers and employees have been drawn up only in two factories.

Recruitment.—Requirements of extra complement are declared by notification on the Factory Notice Boards and selection is made by the manager or labour officer from among those who present themselves at the factory gate. Sometimes, especially in factories in the moffusil, the workers are asked to bring their friends or relations. Only the largest unit which employs over 1,200 workers has a labour officer. Complaints and grievances of workers in other factories are looked into by the managers themselves.

II.—Wages and Earnings.

Rates of Wages.—The rates of wages for different occupations vary from factory to factory. Wages are higher in Bombay than in Poona or in Sholapur. Basic wages have increased slightly as compared to those paid in 1939. The following table shows the rates of wages for a few selected occupations in different units in 1939 and in 1944. The minimum and maximum do not represent regular grades but are only the lower and upper limits of wages paid in different concerns.

TABLE 205

Minimum and Maximum Rates of Wages for Selected Occupations.

Occupation.	Bombay				Poona				Sholapur			
	1939		1944		1939		1944		1939		1944	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	R A. P.	R A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Turners	2 0 0	2 10 0	1 4 0	4 4 0	..	..	30 0 0	..	..	..	13 0 0*	29 0 0
Fitters	0 8 0	2 12 0	1 4 0	4 8 0	..	..	..	..	..	..	15 0 0*	45 0 0*
Welders	..	..	2 4 0	4 6 0	..	..	..	..	..	..	..	..
Carpenters ..	1 0 0	1 8 0	1 12 0	3 4 0	..	..	..	..	17 0 0	..	30 0 0*	45 0 0*
Blacksmiths ..	..	..	1 2 0	2 6 0	..	..	..	..	16 0 0*	..	35 0 0*	40 0 0*
Coppersmiths ..	0 14 0	1 12 0	1 4 0	2 0 0	..	..	..	..	16 8 0*	25 8 0*	18 0 0*	24 0 0*
Tinsmiths.. ..	..	..	0 12 0	2 0 0	..	..	..	..	..	..	..	..
Moulders	..	..	1 10 0	2 0 0	Piece rates		35 0 0*	..	9 0 0*	15 0 0*	10 0 0*	29 0 0
Pressmen	0 14 0	2 0 0	1 2 0	2 8 0	..	..	30 0 0	..	..	..	..	..
Cutters	0 10 0	1 10 0	0 14 0	1 6 0	..	..	25 0 0*	..	..	..	13 0 0*	..
Coolies	0 8 0	1 4 0	0 12 0	1 4 0	12 0 0*	15 0 0*	18 0 0*	25 0 0*	0 5 0	0 12 0	0 10 0	0 15 0

* Monthly rates.

Dearness Allowance and Bonus.—Dearness allowance is given in all concerns. While in two factories dearness allowance was started in December 1939 in others it was given only from 1941 or 1942. In 1939 dearness allowance was 1 anna 3 pies in the rupee for wages up to Rs. 30 and 1 anna for wages over Rs. 30 per month. In 1941 and 1942 the allowance was paid at the rate of 2 or 3 annas in the rupee of wages or at a flat rate of 2 annas per day. The rate of allowance was increased from time to time and in 1944 the allowance was 12 annas per day, 12 annas 6 pies per day and 6 annas per day in three factories in Bombay. The two other factories in Bombay were paying dearness allowance in accordance with the Bombay Millowners' Association scale. One factory in Poona was paying Rs. 15 per month to male workers and Rs. 10 to females, while the other was paying Rs. 14 to workers earning up to Rs. 37 per month, 6 annas in the rupee to those earning between Rs. 38 and Rs. 50 and 4 annas in the rupee to those earning Rs. 50 or more. The factory in Sholapur was paying dearness allowance at 7 annas 6 pies per day to all workers. Four of the five factories in Bombay pay annual bonus to workers. The amount in 1944 was 2 months' wages in three factories and 3½ months' wages in the fourth. The factories in Poona and Sholapur paid one months' wages as bonus in 1943 and 1944. Usually no conditions are attached to the payment of bonus and all workers on the muster are eligible to receive it.

The following table shows the monthly basic wages and gross earnings of workers in a few selected occupations in three factories in Bombay and one factory each in Poona and Sholapur.

TABLE 206

Wages and Earnings in 1944.

(In rupees, to the nearest rupee).

Occupation	1 Bombay						2 Bombay				3 Bombay					
	Basic Wages			Gross Earnings			Basic Wages		Gross Earnings		Basic Wages			Gross Earnings		
	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Max.	Min.	Max.	Min.	Avr.	Max.	Min.	Avr.
Turner ..	84	33	59	103	52	78	90	72	114	116	117	39	41	131	54	55
Fitter ..	63	33	50	82	52	69	117	47	178	92	78	32	39	87	48	55
Moulder ..	..	..		..	..	..	..	..	..	..	52	42	42	75	..	..
Carpenter ..	..	..	..	..	..	..	81	43	127	81	52	42	44	65	57	61
Blacksmith ..	..	..	..	..	..	..	59	..	101	..	45	29	36	58	50	54
Pressman ..	53	24	36	72	43	54	..	..	..	..	65	45	50	78	49	68
Cutter ..	...	..	..	..	..	..	..	..	..	..	36	..	..	50	34	37
Coolie ..	34	20	26	53	39	40	23	..	59	..	32	..	..	52	..	..

Wages and Earnings in 1944—contd.

(In rupees, to the nearest rupees).

Occupation	Poona						Sholapur					
	Basic Wages			Gross Earnings			Basic Wages			Gross Earnings		
	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Avr.
Turner	35	20	26	49	34	40	28	13	21	38	19	32
Fitter	..	..	55	..	..	69	45	15	23	57	27	38
Moulder	41	27	34	56	41	48	29	12	19	41	24	30
Carpenter	..	..	..	..	..	..	45	35	40	57	47	52
Blacksmith	..	..	..	..	..	..	40	35	38	52	47	49
Pressman	38	25	34	52	39	48	..	..	..	..	..	..
Cutter	28	..	..	42	..	..	..	..	13	..	..	25
Coolie	30	18	21	44	32	35	25	17	19	38	30	31

Overtime, etc.—Overtime is worked in all the factories in Bombay and in the factory in Sholapur. No overtime is worked in the Poona factories. Only in one factory in Bombay is overtime compulsory. Payment for overtime is at time and a quarters except in one factory in Bombay where overtime is paid for at 1½ times the normal rate. In all factories overtime is entered in registers kept for the purpose which are open for inspection by the workers or their representatives. Fines are not imposed in any of the factories. Only in two factories are deductions from wages made on account of recovery of advances and the price of grain supplied. The wage period is a month and payment is made before the 7th or the 10th day following the end of a wage period. In one factory advances against wages are given on the 22nd of the month, if required. All the factories are closed once a week, usually on Sundays. Festival holidays are given for Holi and Dipavali. In one factory 6 holidays with pay are given in a year and in another all holidays declared by the Bombay Millowners' Association are granted. Two factories grant 15 days leave in a year, without pay, to all workers.

III.—Working Conditions.

Shifts and Hours of work.—Two factories in Bombay and the one in Sholapur work double shifts, one by day and the other by night. The other factories work only a day shift. The hours of work are 9 in all factories with a spreadover of 10 hours except in one factory where the hours of work are 8 and the spreadover 9 hours. In one factory in Poona the machinemen work from 2 p.m. to 6 p.m. and again from 7 p.m. to 11 p.m., i.e., an 8-hour day with a spreadover of 9 hours and furnacemen work from 7 p.m. to 12 midnight and again from 2 a.m. to 6 a.m., i.e., a 9-hour shift with a spreadover of 11 hours.

Light and ventilation, etc.—Arrangements for light and ventillation are generally satisfactory. There are no rest shelters in any of the factories. In Bombay the workers go to the nearest restaurant or rest in the factory compound during rest interval while in Poona and Sholapur they generally go home. In one factory in Bombay there was a rest shelter but it has now been converted into a grainshop. Sanitary arrangements in all the factories are in accordance with the provisions of the Factories Act and the latrines and urinals are clean.

IV.—Welfare Activities.

Medical aid.—Only two factories in Bombay maintain dispensaries. A qualified doctor has been appointed for full time in one while in the other only one part-time doctor is employed. Free medical aid is available to the workers and their families. Other factories have provision only for first-aid. There is no medical examination of the workers either periodically or at the time of controlled rates.

Canteens and grainshops.—In one factory in Bombay tea is provided free to all workers twice a day. Two other factories in Bombay have canteens where tea and light refreshments are available. The canteen in one of these factories is run by the management while in the other it is run by a contractor. Four factories in Bombay have grainshops selling rationed articles to the workers at controlled rates.

V.—Housing.

Housing accommodation for workers is not provided by any of the factories in Bombay or Poona. In Sholapur the factory management has permitted the workers to erect their own houses on land owned by the employer and twelve temporary sheds each 8 ft. × 12 ft. have been erected. Three to four workers live in each shed. A ground rent of 3 annas per month is charged for each shed.

VI.—Trade Unions and Strikes.

Trade Unions.—Except in one factory at Poona, there is no trade union of workers in this industry. Some workers may, however, belong to one or other of the trade unions in the engineering industry. In Poona the Gujerat Metal Factory Workers' Union has a membership of 50 workers. In 1944 the management of the factory entered into an agreement with the union regarding scales of wages and increments, dearness allowance, provident fund for permanent workers, etc., which was to come into force from the 1st of March 1944.

Strikes.—Only three strikes have been reported in these concerns. In 1944 there was a strike in one Poona factory demanding fixation of wages. The agreement of the management with the union mentioned above was a sequel to the strike. The two other strikes occurred in Bombay, one on the 16th April 1942 in the Metal Box Company of India demanding one month's wages as bonus ; and the other in the Oriental Metal Pressing Works which lasted for 2 days, the 5th and 6th August 1943, and was for an increase in dearness allowance. The first strike ended in a compromise and the second was settled by arbitration.

VII.—Safety Acts, etc.

The provisions of the various safety acts are observed. No cases of occupational diseases have been detected so far. Men working with acids or caustic substances are usually provided with rubber gloves for protection. The following table shows the number of accidents in 1943 and compensation paid in respect of them in four factories in Bombay and one in Poona.

TABLE 207

Number of Accidents and Compensation Paid in 1943.

Place	Unit	No. of Accidents.	Amount of compensation paid.	Remarks.
			Rs. A. P.	
Bombay	1	4	47 2 0	Compensation paid in all cases.
	2	290	2,860 0 0	Compensation paid in 191 cases.
	3	34	456 0 0	Compensation paid in all cases.
	4	10	..	Compensation paid according to the Act.
Poona	1	1	4 9 0	

The accidents were all of minor nature. Only one factory has insured against accidents.

VIII.—Indebtedness.

The increased cost of living due to war has forced several workers to borrow. Five of the eight factories grant loans to their employees free of interest and recover it from their wages. The Sholapur factory has a Co-operative Credit Society which, in 1943, advanced loans to 13 workers, aggregating to Rs. 704, for marriage, repayment of debts, etc.

IX.—General.

Only in the two factories in Poona are provident fund facilities available to workers. The fund is open only to the monthly paid staff. Workers contribute 1 anna in the rupee of their wages and the employers contribute an equal amount. The factories started deducting the workers' contribution from their wages from March 1944 but as the Fund was not recognised the Factory Inspector remarked that the deductions were illegal and directed that the deductions be stopped till after the Fund was recognised.

CHAPTER VIII.—ORDNANCE DEPOTS AND FACTORIES.

As an industry intimately connected with war, ordnance depots and factories have experienced considerable expansion during war-time. The following table, compiled from the factory statistics, shows this expansion.

TABLE 208

Ordnance Factories 1939—43.

Province		1939	1940	1941	1842	1943
Bombay	Factories ..	5	5	7	10	15
	Workers ..	5,3 4	8,770	14,639	27,879	31,001
Bengal	Factories ..	3	3	..	4	4
	Workers	9,275	18,250	23,388	29,418	33,740
U. P.	Factories ..	2	2	..	5	8
	Workers	4,691	8,323	14,778	17,672	28,380
Punjab	Factories ..	6	6	..	7	8
	Workers	6,556	6,700	12,196	19,496	17,585
C. P. & Berar ..	Factories ..	1	1	..	3	3
	Workers	2,093	3,973	5,343	6,713	10,968
Other Provinces ..	Factories ..	8	8	..	10	7
	Workers	2,730	3,983	6,144	11,899	9,422
Total ..	Factories ..	25	25	29	39	45
	Workers	30,709	49,999	76,488	1,13,077	1,31,073

It may be mentioned here that all the ordnance depots do not come under the Factories Act. Interpretation of the Factories Act rests with the Provincial Governments and hence a decision as to whether a particular ordnance depot is or is not a ' factory ' within the meaning of the Act lies with the Chief Inspector of Factories. Consequently there seems to be considerable disparity in the interpretation of the Act, so far as ordnance depots are concerned. For example, Ordnance Depot (Arsenal) Kirkee is in fact a Command Depot with a workshop inside its general perimeter, but even though the

workshop has been separated the Act still covers the whole area. Similarly some other depots (C.A.F. Vehicles Depot, Kirkee ; Inspectorate of Ammunition. Kirkee ; C.M.T.S. Depot, Dehu Road ; Vehicle Distribution Depot, Sewree ; etc.) come under the Factories Act ; the Ordnance Depot, Baroda, comes under the Baroda State Factories Act. In most of these concerns, a section comes under the ' workshop ' category.

While selecting samples for investigation, some depots were taken along with ordnance factories. The expansion of these depots can be seen from the fact, that in Dehu Road area, where in the pre-war days not a single depot was in existence, there are at present five depots employing over 20,000 workers. Labour conditions in 14 depots and 8 factories have been investigated and the distribution of these concerns can be seen from the following table.

TABLE 209.

Samples for Investigation.

Types of Concern	Centres, Provinces and number of concerns		Number of workers (for month in 1944)
(i) Factories under Factories Act	Kirkee (Bombay)	2	20,124
	Jubbulpore (C.P.)	2	20,067
	Calcutta (Bengal)	1	2,225
	Ishapore (Bengal)	2	21,323
	Cawnpore (U.P.)	1 (a* section)	2,421
(ii) Depots under Factories Act..	Kirkee } Bombay Province	3	10,261
	Dehu Road } Bombay Province	2	8,906
	Sewree } Bombay Province	1	5,149
(iii) Depots not under Factories Act	Dehu Road } Bombay Province	3	11,805
	Sewree } Bombay Province	1	8,339
	Kandivali } Bombay Province	1	1,200
(iv) Depots in Indian States ..	Baroda	1	129
	Bhavanagar	1	438
	Cochin	1	250
		22	1,09,637

* A part of the Ordnance Depot is devoted to Engineering Works.

I.—Employment.

Most of the depots are war time creations. As the following table shows only three of the fourteen depots surveyed had been established before 1939. On the other hand only two factories were established in war time—one in Jubbulpore and the other in Kirkee. The Kirkee factory, however, was part of another factory, which has been in existence since 1869, and was separated as an independent unit in April 1941. Many of the activities are still common between the two concerns. Among the concerns investigated, the oldest is in Calcutta and was established in 1830. Five out of the eight factories investigated were in the field before 1906. The table below gives figures for employment in 1939 for the concerns then in existence and for employment in 1944 in all the units investigated.

TABLE 210.

Employment, 1939 and 1944.

Centre	Concern*	August 1939			A month in 1944			Percentage increase	No. of concerns established after 1939
		No. of concerns	No. of workers	Workers per concern	No. of concerns	No. of workers	Workers per concern		
Kirkee	D	2	1,362	681	3	10,261	3,420	402%	1
	F	1	3,282	1,641	2	20,124	10,062	513%	1
Dehu Road	D	..	..	..	5	20,711	4,142	..	5
Jubbulpore	F	1	2,110	2,110	2	20,067	10,039	376%	1
Calcutta	F	1	341	341	1	2,225	2,225	552%	..
Ishapore	F	2	5,270	2,635	2	21,323	10,662	305%	..
Cawnpore	F	1	379	379	1	2,421	2,421	539%	..
Sewree	D	1	163	163	2	10,488	5,244	3,117%	1
Kandivali	D	..	..	..	1	1,200	1,200	..	1
Baroda	D	..	..	..	1	129	129	..	1
Bhavanagar	D	..	..	..	1	438	438	..	1
Cochin	D	..	..	..	1	250	250	..	1
Total ..	D	3	1,525	508	14	43,477	3,106	511%	11
	F	6	11,382	1,897	8	66,160	8,270	336%	2

* D for Depot and F Factory.

Female and Child Labour.—As the following table shows, very few women and children are employed, compared to the number of adult male workers. Thirteen concerns (11 depots and 2 factories), mentioned below, employ female and child labour.

TABLE 211.

Female and Child Labour.

Centre	Depots or factory	Employment in 1939			Employment in 1944		
		Men	Women	Children	Men	Women	Children
Kirkee	Depot ..	533	..	72	3,477	771	187
	„* ..	..	..	..	2,715	195	100
	Factory* ..	..	..	..	1,310	20	..
Dehru Road	Depot* ..	..	..	..	4,788	1,345	274
	„* ..	..	..	..	2,106	378	15
	„* ..	..	..	..	2,930	1,480	190
	„* ..	..	..	..	510	100	28
	„* ..	..	..	..	4,691	1,773	103
Jubbulpore	Factory* ..	..	..	..	12,383	534	238
Sewree	Depot* ..	163	..	..	4,899	330	10
Kandivali	„* ..	..	..	..	993	2	257
Baroda	„* ..	..	..	..	122	..	7
Bhavanagar	„* ..	..	..	..	293	145	..

*These depots and factories have been established in war time.

The above table shows, (a) that in 1939, none of the concerns employed any female labour, while only one concern employed child labour and (b) that female and child labour is more prevalent in depots than in factories. The depots, being practically go-downs, have very little skilled work to be done and hence can easily manage with female and child labour, which is always cheaper than male labour. Women are mostly employed as labourers, sweepers and female searchers. It may be mentioned here that in one of the Kirkee depots, female labourers have been divided into four classes 'A', 'B', 'C' and 'skilled'. However, from the wage rates, it appears that even the 'skilled' female labourer gets a lower wage than even 'C' class male labourers. As for the employment of children, in a number of cases they are classed as 'adolescents', while in many depots, children between the ages of 8 to 15 work as office-boys. In one of the Dehu Road depots, children work only for 5 hours and the depot supplies them free milk; they are also encouraged to study in the classes opened by the Depot inside its premises and there are a few instances where these boys have been absorbed as clerks.

Piece-rated and contract labour.—None of the depots employs piece-rated labour, while 7 of the 8 factories investigated employ such labour.

TABLE 212.

Piece-rated workers.

Centre.	Factory	No. of total workers		No. of piece-rate workers		Percentage of piece rated workers to total	
		1939	1944	1939	1944	1939	1944
Kirkee	I	3,282	19,201	3,001	16,289	91%	84%
Jubbulpore	I	2,110	6,912	911	2,343	43%	34%
	II*	..	13,155	..	1,46	..	11%
Calcutta	I	341	2,207	341	18	100%	1%
Ishapore	I	2,801	8,561	**	5,462	**	64%
	II	2,469	12,762	1,614	5,957	65%	47%
Cawnpore	I	379	2,421	282	1,944	75%	80%

*This factory was started in war time.

**Exact figures are not available, but the proportion is said to be approximately 70 per cent.

In most of the cases, the proportion of piece-rated workers has diminished since 1939, but the number is still considerable and in three factories piece-rated workers outnumber the time-rated. Individual piece-work seems to be common in tool-shop, while most of the other departments such as box-making, powder-filling, painting, etc., have what may be called 'gang' piece-work. Contract labour, however, was not found anywhere. Out of the twenty-two units investigated, only one unit employed contract labour. This was an ordnance depot in Sewree, which employed and paid through contractors 138 male adult workers in 1944.

Length of service.—As a number of concerns have been established in war time, the number of workers, with less than 5 years' service has been found to be unusually large. The old concerns also add to this number, because of their expansion. The following table gives length of service in a number of concerns.

TABLE 213.

Length of service.

Centre	Concern*	Date of establishment	Total No. of workers	No. of workers who served for			
				Less than 1 year	1 to 5 years	5 to 10 years	Over 10 years
Kirkee	F	1869	19,201	6,690	10,231	580	1,700
	F	1941**	1,330	563	726	22	19
	D	1942	2,870	2,350	520	..	..
	D	1921	2,693	815	1,279	344	255
Dehu Road	D	1942	6,015	3,507	2,508	..	..
	D	1942	2,499	1,344	1,185	..	..
	D	1940	4,600	3,000	1,600	..	..
	D	1944 (Mar)	638	638	..	..	..
	D	1941	10,324	8,708	1,616	..	..
Jubbulpore	F	1942**	13,651	10,569	3,025	29	28
Shapore	F	1904	8,431	1,251	4,958	1,179	1,043
	F	1905	12,762	3,046	8,308	964	444
Cawnpore	F	..	2,693	668	1,219	611	195
Sewree	D	..	2,540	1,302	1,210	14	14
	D	1943	1,200	700	500	..	..
Baroda	D	1943 (Sept.)	129	129	..	..	..
Bhavanagar	D	1942	450	262	188	..	..
Cochin	D	1942	315	165	150	..	..
Total ..	D(12) ..	..	34,273	22,920	10,726	358	269
	F(6) ..	..	58,068	22,787	28,467	3,385	3,429
	D & F (18)	..	92,341	45,707	39,193	3,743	3,698

*D=Depot and F=Factory.

**Those concerns established in war time, have a few workers with more than 5 years' service, the reason being that these workers were transferred to these concerns from other ordnance factories.

Permanent and temporary workers.—Except a depot in Dehu Road and a factory in Calcutta, all other concerns treat their workers as temporary. In the Dehu Road depot, 3.4 per cent. of the workers are permanent, while in the

Calcutta factory, the percentage of permanent workers is about 20. Generally in the ordnance factories workers are known as E.T.A. (Extra Temporary Artificers) and in the depots as E.T.E. (Extra Temporary Establishment). All these workers are daily-rated and temporary. The ordnance factories have got definite leave rules, whereby leave on full pay is admissible within the following limits in the financial year :

	Period of service	*No. of days admissible*
I. (*a*)		
	(*i*) less than 3 years	.. Nil.
	(*ii*) 3 years and over but less than 10 years ..	.. 10 days.
	(*iii*) 10 years and over but less than 20 years ..	.. 15 days.
	(*iv*) 20 years and over	.. 20 days.
(*b*)	Leave on Medical Certificate on half pay	30 days in the financial year not more than 120 days in all (throughout service).

II. Leave in cases of Infectious Diseases—Segregation and Anti-Rabic Treatment.

(i) Leave on full pay up to 30 days is admissible, provided that—

(a) the individual has worked 90 days during the past 4 months, and

(b) that the individual has resumed duty immediately on the expiry of the leave.

(ii) Rest after inoculation : 48 hours under the orders of competent medical authority.

III. Leave with pay for part of a day or leave without pay for any number of days is granted at the discretion of the Superintendent or Foreman.

Apprentices.—The ordnance depots, as we have seen above, hardly require any skilled labour and hence have no system of training apprentices. In the ordnance factories, recruitment of Apprentices and Boy Artisans had been suspended for the duration of the war and the I.O.F. Technical Training Scheme had been introduced to meet the demand for Supervisors and Artisans. Apprentice-system is in existence in seven out of the eight factories. In one of the Kirkee factories, the system is meant only for the supervisory posts, while in all the other six factories, there are both supervisor trainees and Artisan Trainees.

(a) Supervisor Trainees, who are usually well educated men with technical knowledge. such as Engineering graduates or chemists, are paid Rs. 50 (plus dearness allowance) per month during the training period. In the Kirkee factories a cycle allowance of Rs. 10 per month is also given under certain conditions. The period of training varies from 6 to 18 months, depending on the individual's attendance, progress and conduct. Practical training in various sections of the factories is given. After satisfactory completion of training and passing the prescribed tests, supervisor trainees are promoted to Supervisors ' C ' grade usually on a pay of Rs. 70 (plus dearness allowance) per month.

(b) Artisan Trainees were found in six out of eight factories. In a Kirkee factory, they may be even non-Matriculates, while in a Jubbulpore factory the minimum educational standard is Intermediate in Science or Engineering of a University and appointments are made by the Public Service Commission. The usual pay for the trainees is Rs. 20 (Rs. 25 for Matriculates) per month. In a Jubbulpore factory, however, there is a regular scale of Rs. 40—80, with annual increments of Rs. 5, Rs. 7-8-0, or Rs. 10 depending upon the progress made. The period of training is 6 to 18 months, except in one factory (in Jubbulpore), where it is 5 years. After satisfactory completion of service, the artisan trainee usually gets Re. 1 per day, as semi-skilled Grade I technician. In a Jubbulpore factory the trainee must be between 19 and 21 years of age at the time of admission and must be unmarried and remain so during the training period.

Both the supervisory and aritsan trainees are governed by the National Service (Technical Personnel) Ordinance, 1940, and are treated as other workers (Extra Temporary Artificers). They are thus subject to leave and other rules of the ordnance factories. In a Jubbulpore factory, retention in service after completion of the training period is not guaranteed, while in a Kirkee factory, the trainees are not eligible for any overtime allowance during their training period. In all cases, however, the period of training is counted towards total service.

Labour Turnover.—The following figures are for labour turnover in some of the concerns investigated.

TABLE 214.

Labour turnover.

Centre.	Concern.*	Period	Number of workers.	Number of workers who left during the period.				Monthly percentage of labour-turnover.
				Retired.	Dismissed.	Voluntarily left.	Total.	
Kirkee	F	1939	4,316	8	250	44	302	0·6%
		1943	19,485	3	8,853	241	9,127	4·0%
	F	1943	1,591	..	177	..	177	09·%
	D	Oct. '43 to Sept. '44 ..	4,520	12	6,988	14	7,140	13·4%
	D	1944	3,233	..	4,512	444	4,956	12·9%
	D	Jan. 1939	..	..	..	..	..	..
		Jan. 1943	3,000 (approx.)	2	..	100 (approx.)	102	3·3%
Dehu Road	D	Oct. 1943	5,126	..	852	35	887	17·5%
	D		1,824	..	454	28	482	26·5%
	D	1940	860 (approx.)	..	448	..	448	4·4%
		1943	4,500 (approx.)	..	7,898	141	8,039	14·9%
		May-Sept. '44 (5 months)	539	..	379	..	379	20·0%
	D	Aug. '43	9,219	..	..	995	995	10·8%
	D	Aug. '44	8,843	..	..	825	825	9·3%
Jubbulpore	F	1939	2,590	11	..	214	225	0·7%
		1943	8,603	16	..	2,520	2,536	2·5%
	F	1943	3,233	..	113	3,005	3,118	8·0%
Calcutta	F	1939	348	..	2	1	3	..
		1943	2,101	285	285	26	311	1·2%
Ishapore	F	1939	3,463	41	88	12	141	0·3%
		1943	8,642	185	1,962**	114	2,261**	2·2%
	F	1944	12,654	1	2,791	56	2,848	1·9%
Cawnpore	F	1939	379	..	289	..	289	6·4%
		1944	2,421	..	691	..	691	2·4%
Sewree	D	1944 (Oct. Nov.) ..	2,540	..	7	121	128	5·8%
	D	1943	4,610	..	2,019	1,106	3,125	5·6%
Kandivali	D	Oct. 1944 ..	1,035	..	62	35	97	9·4%
Bhavanagar	D	1943-44 .. .. (one year).	499	..	938	49	987	16·5%

*D=Depot and F—Factory.

** 1,155 of these workers were discharged during January and Feburary 1943 for being 'deserters' as a result of enemy air raid.

Retirements are very few and occur only in concerns which are of more than 20 years' standing. The figures for 'dismissals' are high because of a rule in the ordnance concerns that if a worker remains absent for more than six days without informing the authorities, he is taken to be discharged. In most of the factories and depots there is a considerable number of workers thus 'dismissed' mainly because the workers finding better prospects elsewhere do not care to come back. Out of the total number of workers left, 95 per cent. in a Dehu Road Depot and 42 per cent. in the Bhavanagar Depot left the concerns this way. In one of the depots the reasons given for labour turnover were : (1) fluctuating work factors—51 per cent. (ii) dismissals due to long absence—42 per cent. and (iii) other causes—7 per cent.

Absenteeism.—An idea of the extent of absenteeism can be had from the following figures.

TABLE 215.

Absenteeism.

Centre.	Concern*.	Period.	Percentage of absenteeism.
Kirkee	F	1939	5·4%
		1943	14·2%
	F	1943	22·7%
	D	1943	17·1%
	D	May-Dec. '43	19·6%
		Jan.-Oct. '44	19·6%
	D	1939	5·0%
		1944	13·0%
Dehu Road	D	1943	22·5%
	D	1943	27·4%
	D	July-Dec. '43	17·8%
	D	Jan.-Oct. '44	14·0%
	D	May-Sept '44	11 to 20·%
		1943	20%
Jubbulpore	F	1939	11·9%
		1943	19·0%
	F	1943	20·6%
Calcutta	F	1939	5·0%
		1943	17·0%
Ishapore	F	1939	8·1%
		1940	8·9%
		1941	9·8%
		1942	14·6%
		1943	11·9%
		1944	12·6%
Cawnpore	F	1939	14·3%
		1944	21·1%
	F	1939	13·0%
		1943	12·0%
Sewree	D	1943	5·0%
		1943	14·8%
Kandivali	D	1944	5·0%
Bhavanagar	D	1943	8·6%
Cochin	D	1943	32·0%

*D=Depots and F=Factory.

In most cases, absenteeism has increased since 1939. Absenteeism is generally high in February (when workers go to their native places for Holi), in July-August (harvest season) and in October-November (Diwali), as the following table shows.—

TABLE 216.

Absenteeism Month by Month.

Month.	A Kirkee Factory 1943.	A Kirkee Depot.		A Dehu Road Depot 1944.	Month.	A Kirkee Factory 1943.	A Kirkee Depot.		A Dehu Road Depot.	
		1943.	1944.				1943.	1944.	1943.	1944.
January ..	18·57%	..	21·1%	14%	July ..	27·49%	17·8%	17·8%	19%	11%
February ..	20·03%	..	24·6%	15%	August ..	32·71%	18·5%	20·9%	21%	14%
March ..	20·95%	..	21·4%	15%	September ..	19·58%	20·1%	16·3%	16%	14%
April ..	22·35%	..	18·2%	15%	October ..	23·50%	16·0%	15·8%	17%	14%
May ..	20·44%	19%	18·5%	16%	November ..	21·15 %	21·6%	..	18%	..
June ..	19·20%	20%	15·5%	12%	December ..	21·81%	24·6%	..	16%	..

Standing Orders.—One of the Kirkee factories has published its 'Rules and Regulations' in a booklet and the two Ishapore factories have attached their 'Standing Orders' to their schedules of Standard wages. Apart from these concerns, no other unit seems to have any independent 'Standing Orders'. The ordnance authorities have published the 'Standing Orders for I.A.O.C.', Sections 58 to 74, 92 and 97 to 99 of which relate to Extra temporary Establishment and Tradesmen and include such topics as discipline, transfers, trade-test, increments, apprenticeship, pay and allowances, etc. Most of the ordnance concerns take for guidance the 'Regulations for the Army Ordnance Services (India)—Part I', along with depot orders, departmental regulations and statutory rules. Minor matters, like those in regard to internal management, however, are often subject to the rules framed by the Commanding Officer or O.O. (Administration).

Recruitment.—Almost all the ordnance concerns have complained of an acute shortage of labour, caused by various factors such as considerable expansion in number of workers late establishment, high demand for labour outside, distance from inhabited areas, etc. There has been a competition among the ordnance concerns *inter se* to secure labour and workers discharged from one concern get admission easily into any other concern and in some cases even in the same concern. The method of 'black list' of discharged workers has failed, because of high demand for labour. The most common method adopted by about 50 per cent. of the ordnance concerns is to set up a Labour Bureau for recruitment. Intending workers either gather at the gate or are brought there by workers, who happen to be their friends or relatives. The Labour Bureau, which collects the demands for additional labour from various 'shops' in the Establishment, interviews the workers. In the absence of a Labour Bureau, workers are directly recruited by the Superintendent or the Administrative Officer. The workers are medically examined and tradesmen are trade-tested before their rates are fixed. In a number of cases the character and antecedents of all the workers recruited are verified by the Police. Skilled and semi-skilled workers are sometimes recruited through the National Service Labour Tribunal or the Director of Factory Recruitment. In Dehu area, Indian Superior Personnel (Extra Temporary Establishment), such as supervisors, leading hands, clerks, etc., are recruited through the I.S.P. (E.T.E.) Selection Committee. The import of labour on a large scale is effected only in a Jubbulpore factory, U. P. Labourers are recruited by an Officer on Special Duty at Gorakhpore, on the following terms and conditions (laid down in Government of India : Department of Labour : Memorandum No. L.R. 91 of 10th April 1944).

Pay (General)—Re. 1 per day (every day of the month).

Overtime Pay—Re. 0-2-6 per hour. If worked on Sundays and holidays the hours worked will be taken as overtime.

While on certified medical leave—Re. 0-8-0 per day.

Rations and housing—free.

Leave with pay on Sundays and Gazetted holidays. Labour had been brought in large numbers because of extreme shortage in the vicinity. It is curious, however, that another ordnance factory, hardly four miles from it, gets its labour from the adjacent areas. Complaints were made that officers maltreated the workers.

Labour Officer.—Every ordnance factory (except in Calcutta) and depot has a Civilian Labour Officer, usually of Gazetted rank. He serves as a Liaison Officer between the Administration and the employees. He not

only enquires into the grievances of the workers but also supervises welfare work. He has to look after canteens, rations, co-operative stores, housing accommodation, education, recreation, sports, etc. In his work, the Labour Officer is helped by the Workers' Welfare Committee. In one of the Dehu Road Depots, 'Durbars' are held by the Commanding Officer once a quarter, when all the labourers are allowed to ventilate their grievances.

II.—Wages and Earnings.

Rates of Wages in Depots.—The occupations of the ordnance depot workers fall into three categories from the point of view of the authorities sanctioning their wage-rates. (i) The rates of the first category comprising supervisors, clerks, gatekeepers and labourers of various grades are determined by the various G.H.Q. letters issued from time to time and are generally in accordance with local conditions within the Commandant's powers. (ii) The wage-rates of motor-drivers, sweepers, daftaries, malis, peons, etc., who form the second category are laid down according to local Nerrick Rates as authorised by and published in the Area and Station Orders from time to time. They are fixed by local Nerrick Rate Committees. (iii) The wage-rates of all technical trades (artificers of various kinds) are laid down in the Standing Orders for I.A.O.C. (Paras 98 and 99). The tradesmen, for the purposes of pay, are divided into three groups as follows :—

Group A—Armature Winders, Bricklayers, Coppersmiths, Electricians, Fitters, Instrument Mechanics, Machinists, Pattern makers, Turners, Welders, etc.

Group B—Blacksmiths, Carpenters, Electroplaters, Moulders, Painters, Rivetters, Saddlers, Tailors, etc.

Group C—Rope workers, Sawyers, Skilled labourers, Grinders, Polishers, Tradesmen's Mates, etc.

These Groups are further divided into three classes each having two scales of pay—'A' and 'B'. Wages according to Scale 'A' are paid at Rawalpindi, Quetta, Bombay, Drigh Road, Chakala, Bannu, Delhi, Mir Ali, Deolali, Nowshera and Peshawar. Wages according to Scale 'B' are paid at Ferozepore, Lahore, Kirkee, Allahabad, Calcutta (F.W.D.), Agra, Ahmednagar, Madras, Dehu Siding, Lucknow, Bangalore and Jubbulpore. The rates for tradesmen are given in the following table.

TABLE 217.

Wage-Rates (in Rs.) for Tradesmen in Ordnance Depots.

Grading.	Group A.		Group B.		Group C.	
	Scale 'A'	Scale 'B'	Scale 'A'	Scale 'B'	Scale 'A'	Scale 'B'
Tradesmen						
Class I						
Maximum	3 8 0	3 0 0	3 0 0	2 8 0	0 0 0	0 0 0
Minimum	3 0 0	2 8 0	2 8 0	2 2 0	0 0 0	0 0 0
Class II						
Maximum	2 12 0	2 6 0	2 6 0	2 6 0	0 0 0	0 0 0
Minimum	2 4 0	1 14 0	1 14 0	1 10 0	1 6 0	1 2 0
Class III						
Maximum	2 0 0	1 12 0	1 12 0	1 8 0	1 0 0	0 14 0
Medium	1 12 0	1 8 0	1 8 0	1 4 0	0 14 0	0 12 0
Minimum	1 8 0	1 4 0	1 4 0	1 0 0	0 12 0	0 10 0

The rates of labourers vary from place to place and were as follows in the centres investigated.

TABLE. 218.

Wage-Rates (in Rs.) for labourers in Ordnance Depots.

Occupation	Kirkee.	Dehu Rd.	Sewree & Kandivali.	Baroda.	Bhavanagar.	Cochin
Male Labourers						
—Skilled	1 2 0	1 2 0	..	..	..	..
—Special	1 10 0	1 0 0	..	..	..	..
—Class A	0 14 0	0 14 0	1 4 0	1 0 0	0 14 0	..
—Class B	0 12 0	0 12 0	1 2 0	0 14 0	0 12 0	..
—Class C	0 10 0	0 10 0	1 0 0	0 12 0	0 10 0	0 10
Female Labourers						
—Skilled	0 9 0	..	..	..	..	..
—Class A	0 8 0	0 7 0	..	..	..	..
Class B	0 7 0	0 6 0	..	..	..	..
—Class C	0 6 0	0 5 0	..	..	..	..
Adolescents Boys	..	0 8 0				
Boys	0 5 0	0 5 0 to 0 7 0	0 6 0	0 8 0	0 6 0 to 0 8 0	0 6 0

Rates of Wages in Ordnance Factories.—All the ordnance factories have either a 'List of grades with Minimum and Special Rates' or a 'Schedule of Standard Wages', which give the wage-rates for all the categories of workers. Though a considerable uniformity in wage-rates exists in a number of trades, slight variations because of different local conditions are bound to occur. The following table shows these variations in the case of some trades in different areas.

TABLE 219.

Wage-rates (in Rs.) in Ordnance Factories.

Occupation.	Grade.	Wage-rates in a factory in—									
		Kirkee		Jubbulpore		Calcutta		Ishapore		Cawnpore	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Armature Winder	I	3 0	5 0	1 0	3 0	1 0	1 6	1 12	3 0	..	..
	II	1 8	2 14	..	..	..	..	0 12	1 8	..	..
	III	0 12	1 6	..	..	..	..	..	..	..	..
Beltman	I	0 12	1 10	0 12	2 0	1 8	1 12	1 8	1 12	0 8	1 0
	II	..	..	..	..	0 14	1 4	0 14	1 4	..	..
Blacksmith	I	1 14	2 8	2 8	3 0	..	..	1 4	3 0	1 4	2 4
	II	1 0	1 14	0 14	2 8	1 12	2 12	..	1 8	0 12	1 4
	III	..	..	..	..	..	..	..	..	0 8	0 12
Carpenter	I	2 6	3 4	2 6	3 4	1 12	2 12	1 4	2 0	1 8	2 8
	II	1 11	2 4	1 12	2 4	1 8	1 12	1 0	2 0	1 0	1 7
	III	1 0	1 10	1 0	1 10	1 0	1 6	..	..	0 10	0 15
	IV	..	..	..	..	0 11	1 0	..	..	0 6	0 10
Fitter	I	2 6	3 4	2 6	3 4	2 8	3 0	2 0	3 0	2 0	(Boy 3 0
	II	1 11	2 4	1 12	2 4	2 0	2 6	1 4	2 0	1 8	2 0
	III	1 0	1 10	1 0	1 10	1 8	1 14	1 0	1 8	1 0	2 0
	IV	0 12	0 15	0 12	0 15	1 0	1 6	..	..	0 9	0 15
Grinder	I	1 11	2 12	1 12	3 0	1 0	3 0	1 12	3 0	1 2	1 8
	II	1 3	1 10	1 4	1 10	..	..	1 8	3 0	0 12	1 0
	III	0 12	1 2	0 12	1 2	..	..	1 0	2 0	..	..
Labourer-Male	I	0 11	0 14	0 10	0 14	0 14	1 4	0 14	1 4	0 10	0 12
	II	0 10	0 12	0 8	0 10	0 12	1 0	0 12	1 0	0 8	0 10
	III	0 7	0 9	..	..	0 6	0 14	..	..	..	..
—Female	I	..	..	0 6	0 8	..	..	..	..	..	..
—Boy	I	0 5	0 6	0 5	0 6	..	..	0 9½	0 12	0 5	0 7
Mason	I	2 4	2 8	1 12	2 8	..	..	..	..	1 4	2 0
	II	0 14	2 4	0 14	1 10	..	..	..	..	0 12	1 2

TABLE 219.

Wage-rates (in Rs.) in Ordnance Factories.

Occupation	Grade	Wage-rates in a factory									
		Kirkee		Jubbalpore		Calcutta		Ishapore		Cawnpore	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Packer	I	1 4	1 14	1 4	1 14	1 0	1 6	0 12	1 0	0 12	1 8
	II	..	..	..	..	0 12	1 2	..	..	..	..
Painter	I	1 11	2 8	1 10	2 4	..	..	1 8	2 0	1 2	1 8
	II	1 0	1 10	0 10	1 10	..	..	0 12	1 4	0 10	1 1
	III	0 10	1 0	..	..	..	..	..	..	..	..
Switch Board Attendant ..	I	2 6	3 4	2 2	2 8	..	..	2 8	4 0	..	..
	II	1 11	2 4	1 10	2 0	..	..	1 8	2 8	..	..
	III	1 0	1 10	1 0	1 8	..	..	..	..	..	..
Printer	I	1 6	1 14	1 6	1 14	0 11	1 2	1 8	3 0	..	..
	II	0 12	1 6	0 12	1 6	..	..	1 4	2 0	..	..
Tinsmith	I	2 12	3 0	2 8	3 0	1 12	2 12	1 12	3 0	1 10	2 4
	II	1 11	2 12	1 12	2 8	1 8	1 12	1 0	1 12	0 14	1 8
	III	..	..	1 0	1 10	1 0	1 6	..	..	..	..
	IV	..	..	..	..	0 12	1 2	..	..	..	..
	V	..	..	..	..	0 10	0 14	..	..	..	..
Turner	I	2 6	3 4	2 6	4 0	2 8	3 0	2 8	4 8	1 9	2 12
	II	1 11	2 4	1 12	2 4	2 0	2 6	1 12	3 0	1 6	2 0
	III	1 0	1 10	1 0	1 10	1 8	1 14	1 0	1 12	0 12	1 8
	IV	0 12	0 15	0 12	0 15	1 0	1 6	0 14	1 8	0 12	1 4
Welder	I	3 2	5 0	3 0	3 8	1 12	2 12	2 0	3 0	1 8	2 8
	II	2 1	3 0	2 2	3 0	..	..	1 0	1 12	0 12	1 8
	III	1 0	2 0	1 0	2 0	..	..	0 14	1 4	0 8	1 8
Wiremen	I	3 2	4 0	3 2	4 0	..	..	1 0	2 0	1 0	1 8
	II	2 10	3 0	2 10	3 0	..	..	..	..	0 10	1 0
	III	2 0	2 8	2 0	2 8	..	..	..	..	..	..
Wiremen Asstt.	I	1 9	2 0	1 9	2 0	..	..	..	..	..	..
	II	1 1	1 8	1 1	1 8	..	..	..	..	..	..
	III	0 12	1 0	0 12	1 0	..	..	..	..	..	..

The rates may be broadly stated as : Rs. 1-8-0 to Rs. 5-0-0 for skilled workers, Re. 0-10-0 to Rs. 1-6-0 for semi-skilled workers and Re. 0-6-0 to Rs. 1-2-0 for unskilled workers. Boys are employed mostly for unskilled jobs. One of the Ishapore factories, however, gives their wage-rates for skilled and unskilled work.

TABLE 220.

Wage-rates for 'Boys' in an Ishapore Factory.

Age.	Skilled.	Semi-skilled.	Unskilled.
21	1 0	0 14	0 12
20	0 14	0 12	0 11
19	0 12	0 10	0 10
18	0 10	0 9	0 9
17	0 8	0 8	0 8
16	0 6	0 7	0 7
15		0 6	0 6

Increments.—The increment within the grades is annual in Calcutta, Ishapore and Cawnpore and biennial in Kirkee and Jubbulpore. Even the ranges of incomes, for which increments change, differ as follows :—

TABLE 221.

Increments.

Increment of.	Range of daily rates in a factory in		
	Kirkee.	Jubbulpore.	Cawnpore.
One anna	Up to Rs. 1-0-0	Rs. 0-8-0 to Re 1-0-0	Upto Rs. 1/8
Two annas	Re. 1-0-0 to Rs. 2-4-0	Re. 1-0-0 to Rs. 2-4-0	Rs. 1-8- to 2-7
Three annas	..	Rs. 2-4 to 3-0	Rs. 2-8 to 3-7
Four annas	Rs. 2-4-0 & up	Rs. 3- to 5	Rs. 3-8- to 5

However, for the period of war, the normal rules governing the grant of increments, as above, have been relaxed to enable special increments to be given to men who show exceptional aptitude or proficiency in their work. The period of two years in Kirkee has been reduced to six months. In a Kirkee factory, as a special war-measure, increments of a special nature have been given under special orders at shorter intervals than two years in cases where men were given additional responsibilities or had made such improvements as to justify a revised rate of pay, though not upgrading. As a result of such

concessions, mainly provided by war, we find variations in time-limits for increments in factories as well as depots. Out of the fourteen depots investigated, for example, three give promotions after every six months of approved service, while four give after a year's service. In one of these depots, though promotion is given every six months, regradation takes place after first three months' service. In the remaining five depots, there seems to be no time-limit and promotions are given as vacancies occur.

Wages of piece-rated and Contract Labour.—Piece-work rates, which are found only in factories, are generally so fixed as to give on an average a 25 per cent. bonus over the day-work rates. Contract labour is rare, but it seems that workers employed by contractors (for outside work in adjoining areas) get more than those employed in the ordnance concerns. In Jubbulpore, for example, wages of contract labour are 12 annas per day as against 8 annas per day paid to labour employed directly. In Dehu-Kirkee area, one of the complaints of the ordnance authorities was that the contractors took away a lot of labour by offering wages better than those paid by ordnance depots. To avoid competition, it seems, an agreement was reached with the contractors, fixing the maximum wages. Very few changes have been made in the basic wage-rates since 1939.

Dearness Allowance.—Since the outbreak of war, dearness allowance has been allowed to workers at different rates. With effect from 1st January 1945, they are being paid at 17½ per cent. of their pay subject to the following pay limits (as per Labour Department letter No. E-83(3)-11, dated 9th June 1945) :—

	Rs.
Rs. 40 and above	20
Below Rs. 40	19

During the period of war emergency as declared by the local Government, the workers, subject to their satisfactory attendance, were given an emergency allowance at 20 per cent. of their pay. At the time of investigation in 1944, however, dearness allowance was paid at a flat rate, but it varied according to localities. It was, for example, Rs. 16 in Bombay, Calcutta, Ishapore and Cawnpore, Rs. 14 in Poona and Rs. 11 in other areas like Dehu Road, Baroda, Jubbulpore and Bhavnagar. Even in the same area, variations in the allowance existed for different classes of workers. For example, in Kirkee the rates were.

TABLE 222.

Dearness Allowance in Kirkee in 1944.

Wage-group.	Pay limits.	Amount of Dearness Allowance (Rs.p.m.)
(a) Employees governed by Factories Act	Up to Rs. 175 p.m.	14 0 0
(b) Clerical Workers	(i) Up to Rs. 40 p.m. ..	9 0 0
	(ii) Rs. 40 to Rs. 150 p.m. ..	12 0 0
(c) Personnel on Nerrick rates of Pay	(i) Up to Rs. 40 p.m.	9 0 0
	(ii) Rs. 40 to Rs. 90 p.m. ..	12 0 0

In Bhavnagar again, workers getting less than Rs. 40 per month get only Rs. 9 per month, while others got Rs. 11 per month. In Jubbulpore, the maximum pay-limit was Rs. 125. The system of dearness allowance has been revised from time to time during the course of the present war. The following table gives details in regard to establishments in Kirkee.

TABLE 223.

Development of Dearness Allowance in Kirkee.

Period.	Maximum Pay-limit (Rs. p.m.)	Dearness Allowance (Rs. p.m.)
1-3-1941 to 31-12-1941	29 0 0	2 0 0
1-1-1942 to 14-6-1942	60 0 0	3 12 0
1-7-1942 to 31-1-1943	70 0 0	6 4 0
15-6-1942 to 31-1-1943	90 0 0	8 12 0
1-2-1943 to 31-12-1944	200 0 0	14 0 0

Similarly in Bombay, dearness allowance was Rs. 4-8-0 p.m. from June 1941 to July 1942 and Rs. 10-8-0 p.m. from July 1942 to February 1943. In Cawnpore, dearness allowance at the rate of Rs. 3-12-0 per month up to Rs. 60-0-0 was granted to the workers on 1st January 1942 and this was increased to Rs. 7-8-0 per month up to Rs. 10-0-0 from 1st July 1942 ; the rate was then increased to Rs. 10-8-0 up to the pay limit of Rs. 120-0-0 and eventually to Rs. 16-0-0 up to a pay-limit of Rs. 200-0-0 with effect from 1st February 1943. On 1st March 1944, the pay limit was further increased to Rs 250-0-0 per month.

Besides that for dearness, a few other allowances are also paid. In a Dehu Depot, a conveyance allowance of Rs. 15-0-0 p.m. is given to monthly paid staff. In the two Kirkee factories, a similar allowance amounting to Rs. 10 p.m. is paid to Supervisory Trainees, who reside in Poona. In an Ishapore factory, light refreshment at a cost of one and a half anna per worker per day is served free for nightshift workers only. Workers in some other factories (in Kirkee and Ishapore) are paid night-shift bonus, generally equivalent to 50 per cent. of the overtime payment. In some of the long standing ordnance concerns, ' bonus ', which is a sort of gratuity, is paid to workers who have put in satisfactory service for a certain period. For example, in a depot in Kirkee, a ' bonus ' of one day's wages for each completed month of service is credited to the workers' account since September 1939. This bonus was to be payable only after the cessation of hostilities provided the workers remained in service during the war-period. The ' bonus ' systems of some other concerns are discussed along with the gratuity scheme of the ordnance concerns at the end of this Chapter.

Earnings.—The following table gives some details about daily basic wages and monthly total earnings of workers employed in some of the concerns. In ordnance depots, which employ mostly unskilled labour, wages are lower than in factories.

TABLE 224.

Wages and Earnings.

Area.	Concern*.	Information relating to: Month (1944)	Information relating to: No. of days.	Types of* workers.	No. of workers.	Daily Basic Wages: Max.	Daily Basic Wages: Min.	Daily Basic Wages: Average.	Monthly total Earnings: Max.	Monthly total Earnings: Min.	Monthly total Earnings: Average.
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kirkee	F	January ..	26	P—M	18,765	3 5	0 6	0 14	222 0	32 3	40 8
				T—M	3,620	3 7	0 6	0 14	166 13	26 15	40 8
	F	January ..	26	T M	1,310	5 8	0 11	1 10	189 0	34 4	71 9
				T F	20	0 7	0 7	0 7	27 4	27 4	27 4
	D	January ..	26	T M	2,715	0 14	0 10	0 12	42 12	34 8	38 10
				F	195	0 8	0 5	0 7	30 6	24 3	27 5
				C	100	0 8	0 5	0 7	30 6	24 3	27 5
	D	August ..	24	T—M	2,760	3 10	0 8	0 14	132 0	30 0	37 8
Dehu Road ..	D	January ..	27	M	2,930	0 14	0 8	0 11	47 13	26 2	35 0
				T F	1,480	0 7	0 5	0 6	24 0	20 7	22 4
				C	190	0 5	0 5	0 5	21 0	20 7	20 11
	D	September ..	30	M	305	0 10	0 8	0 9	30 11	28 5	29 15
				T F	100	0 5	0 4	0 5	20 6	16 3	18 5
				C	28	0 5	0 4	0 5	21 2	15 0	19 8
Jubbulpore ..	F	July ..	26	M	7,697	0 10	0 8	0 9	30 13	30 9	30 11
				T P	643	0 6	0 6	0 6	23 8	22 0	22 12
				C	200	0 5	0 5	0 5	19 2	19 2	19 2
				P—M	67	1 7	1 6	..	148 4	131 9	..
Calcutta	F	..	26	..	2,225	6 10	1 3	3 2	181 13	16 14	92 2
				P	581	5 12	3 6	4 9	190 14	149 15	180 0
Ishapore	F	August ...	26	S T		4 3	2 6	3 4	136 6	75 1	105 11
				SS—P	4,148	2 14	2 0	2 7	92 14	62 2	77 8
				U—T	2,181	2 0	1 7	1 11	62 5	43 15	53 2
	F	July ..	26	..	643	7 6	0 13	2 4	207 0	39 4	95 2
Sewree	D	September ..	26	M	4,761	..	..	1 3	..	..	46 0
				T F	330	..	..	0 7	..	..	19 1
				C	10	..	..	0 6	..	..	25 11
Bhavnagar ..	D	September ..	26	M	331	5 0	0 8	1 11	163 0	26 4	55 11
				T F	88	2 8	0 6	1 5	76 0	20 12	45 0
				C	8	0 8	0 6	0 7	23 0	17 2	19 9

*F—Factory ; D—Depot ; P—Piece-rate ; T—Time-rate ; M—Males ; F—Females ; C—Children ; S—Skilled, S. S—Semi-skilled ; U—Unskilled.

Overtime.—The normal actual hours of work in an ordnance establishment are 8 on week-days and 4¾ on Saturdays. Hours of work, worked in excess of these, are considered as overtime. Usually one or two hours' overtime is worked every day and is paid according to the provisions of the Factories Act. For night-shift workers a 'bonus' is paid at the rate of half an hours' pay for every hour of overtime work during night-shift. Overtime work seems to be compulsory in the ordnance industry. Usually overtime is recorded in muster-rolls or check-rolls, which are open to workers' representatives for inspection. Generally each section or branch has a separate record of overtime work done and it is recorded on an Army Form—I.A.F.O.-1398 and on check-rolls.

Deductions and Fines.—Most of the deductions are on account of fines, as can be seen from the following figures, compiled from the Factory statistics for ordnance factories of the Bombay Province.

TABLE 225.

Deductions and Fines.

Year.	No. of factories.	No. of workers.	Deductions on account of				
			Total wages paid. Rs.	Fines. Rs.	Breach of contact.	Damage or loss.	Total.
1941 ..	7	14,643	59,10,891	524	..	2	526
1942 ..	9	27,746	1,38,73,261	1,750	236	96	2,082
1943 ..	10	30,935	1,52,87,531	4,508	..	94	4,602

All the five concerns investigated in Kirkee (2 factories and 3 depots) come under the Factories Act and the details of deductions and fines in 1943 in these concerns are given below.

TABLE 226.

*Deductions and Fines in Kirkee.**

Concern.	Deductions on account of					
	Fines.		Breach of contract.		Damage or loss.	
	Cases.	Amount.	Cases.	Amount.	Cases.	Amount.
		Rs.		Rs.		Rs.
Factory I	6,173	2,261	..	..	..	..
Factory II	512	157	..	..	22	20
Depot I	..	..	799	977	32	73
Depot II	748	623	..	..	..	..
Depot III	400	273	..	..	..	..

*Compiled from the factory statistics.

In fact all the concerns, except two, have maintained Fine Funds, and the amount outstanding in some of them is very high. The following table gives the amounts of some of these Fine Funds.

TABLE 227.

Fine Fund.

Area.	Concern*.	No. of workers employed.	Amount outstanding in Fine Fund.
			Rs. A. P.
Kirkee	F	19,201	5,910 1 2
	F	1,330	338 10 0
	D	4,435	4,847 7 2
Dehu Road	D	4,600	1,194 0 3
	D	6,567	200 0 0
Calcutta	F	2,225	362 8 9
Ishapore	F	8,561	2,023 4 4
	F	12,762	4,093 2 5
Sewree	D	5,339	3,860 2 3
Baroda	D	129	28 2 0
Bhavnagar	D	438	149 10 0
Cochin	D	250	135 3 3

*D—Depot and F—Factory.

The Director-General of the Ordnance Factories is the controlling authority for the Fine Funds in ordnance factories. However, the Superintendent or the Administrative Officer of an ordnance concern may be authorised by the Director General of Ordnance Factories to spend the moneys in the Fine Fund for providing (i) medical aid to workers—subject to cancellation by the Chief Inspector of Factories if the standard is not adequate, (ii) education facilities for workers, (iii) aid to establishment of or more successful working of co-operative societies for the benefit of employees and their dependents; (iv) sickness benefit, and (v) welfare activities including canteens, restaurants etc., for employees and their dependents.

Wage Period and Wage Payment.—The wage-period is a month in all the units investigated, except in a Sewree depot, where it is a fortnight: Following the Payment of Wages Act, payment is made within a week (in concerns employing less than 1,000 workers) or within 10 days (in concerns with more than 1,000 workers) of the month following. In a Dehu Road Depot workers have been divided into four groups and they are paid on different Saturdays in a month. One of the Kirkee depots admitted that on rare occasions and for administrative reasons payment was made on the 11th or 12th of a month.

Holidays.—Ordnance factories have been exempted, for the duration of war, from Section 35 (Weekly Holiday) of the Factories Act. Most of the depots grant holidays on Sundays while the factories give holidays on Sundays and officially Gazetted holidays. In a Kirkee factory, for example, besides Sundays, there are 12 full and 2 half holidays. In two depots, a half day is normally given each Saturday for which full day's pay is allowed.

III.—Working Conditions.

The number of shifts depends upon the nature of work to be done. In all the four factories, the manufacturing process in war-time demanded the working of two normal shifts—day and night. Most of the depots, on the other hand, worked only a day-shift for the general class of workers. In addition to the general shifts, most of the concerns, especially the factories, work different shifts for the maintenance staff and in some cases for electrical, production or other sections. One of the Jubbulpore factories, for example, has three shifts for Electrical Section and eight for the Erection and Maintenance staff. In a Baroda Depot, there is an 8-hours shift for night-searchers and a 12-hour shift for fire fighting labourers ; while in a Bhavanagar Depot, there are three shifts of 8-hours each for gate-keepers, three each of 8 to 9 hours' duration for chowkidars and one eight-hour shift for drivers. The following table, however, gives only the general shifts, which are worked by a majority of workers.

TABLE 228.

Shifts and Hours of work.

Centre.	Concerns*.	Shift.	Shift. Commences at.	ends.	Rest hours.	Actual hours of work.	Total spread-over.
Kirkee ..	F	Day ..	8-30 a.m.	5-30 p.m.	1	8	9
		Night ..	8-30 p.m.	5-30 a.m.	1	8	9
	F	Day ..	7-30 a.m.	4-30 p.m.	1	8	9
	D	,, ..	8-00 a.m.	5-00 p.m.	1	8	9
		,, ..	8-30 a.m.	5-30 p.m.	1	8	9
Dehu Road	D	,, ..	8-15 a.m.	5-15 p.m.	1	8	9
	D	,, ..	8-20 a.m.	5-20 p.m.	1	8	9
	D	,, ..	8-45 a.m.	5-45 p.m.	½	8½	9
	D	,,	8-45 a.m.	4-45 p.m.	½	7½	8
Jubbulpore	F	,, ..	8-00 a.m.	5-00 p.m.	1	8	9
		Night ..	8-00 p.m.	4-00 a.m.	1	7	8
		Day ..	8-00 a.m.	5-00 p.m.	1	8	9
		Night ..	9-00 p.m.	5-00 p.m.	1	7	8
Calcutta ..	F	Day ..	8-00 a.m.	7-30 p.m.	1	10½	11½
		Night ..	8-00 p.m.	7-00 a.m.	1	10	11
Ishapore	F	Day ..	7-45 a.m.	7-15 p.m.	1	10½	11½
		Night ..	7-45 p.m.	6-45 a.m.	1	10	11
	F	Day ..	8-00 a.m.	7-00 p.m.	1	10	11
		Night ..	8-00 p.m.	7-00 a.m.	1	10	11
Cawnpore	F	Day ..	7-00 a.m.	5-00 p.m.	1	9	10
		Night ..	8-00 p.m.	6-00 p.m.	1	9	10
Sewree ..	D	Day ..	8-00 a.m.	4-00 p.m.	@	@	8
	D	,, ..	8-30 a.m.	4-30 p.m.	@	@	8
Kandivali	D	,, ..	8-00 a.m.	4-00 p.m.	½	7½	8
Baroda ..	D	,, ..	9-00 a.m.	5-00 p.m.	@	@	8
Bhavnagar	D	,, ..	8-30 a.m.	5-00 p.m.	1	7½	8
Cochin ..	D	,, ..	8-30 a.m.	4-30 p.m.	1	7½	8

*D—Depot and F—Factory.

As we have already noted, overtime is very common in this industry and it varies from one hour in most of the depots to one and a half to three hours in factories. Overtime work thus extends the number of actual hours of work and the hours of total spreadover. The hours of work on Saturdays in most of the factories are usually less than those on week-days ; they are 4¾ in Kirkee and Jubbulpore, 6½ in Ishapore and 7½ in Calcutta. In a Dehu Road Depot, the hours of work on Saturdays are 5½. However, overtime, even on Saturdays increases the hours of work to over 8.

Ventilation, Lighting, Congestion, Flooring, Protection against Heat, etc.—Almost all the ordnance establishments are situated in rural areas and have occupied extensive lands, with the result that in spite of a tremendous increase in the number of workers, there appears to be very little congestion. It seems that there exist some Ammunition Factory Regulations, which lay down certain standards in this respect for the ordnance factories. As for the depots, the work is mainly of non-industrial character such as loading and unloading and stacking in sheds, or in other words, storage, receipt and issue of ordnance stores. The labour required for such work is mostly unskilled, and a large percentage (from 50 to 75 per cent.) of it works in open ground for a major part of the day. In one of the Dehu Road Depots, there are 82 sheds, while in another there are 6 sheds, the dimensions of each being 315 ft. × 185 ft. The floor area per worker is 3,417 sq. ft. in a Baroda depot and only 53 sq. ft. in an Ishapore factory.

Shelters.—Shelters have been provided only in seven concerns—four factories (one each in Kirkee, Jubbulpore, Ishapore and Cawnpore) and three depots (one each in Kandivali, Bhavnagar and Cochin). The Kirkee factory employing about 1,330 workers has 8 shelters as follows :—

TABLE 229.

Rest shelters in a Kirkee Factory.

Shelter.	Dimensions.	Description.	Equipment.			
			Tables.	Chairs.	Lockers.	Other amenities.
I ..	18′ × 15′ × 12′ ..	Staff meal shelter for Mechanical workshop	2	10	2	1 Cold water tap.
II ..	44′ × 40′ × 12′ ..	Workmen's meal shelter for V Section (2 rooms).	..	..	10	3 racks for clothes.
III ..	45′ × 20′ × 12′ ..	Workmen's shift room and bath room for W Section (2 rooms),	2	..	52	9 bread bins, 3 benches, 2 wash fountains, and 5 cold water showers.
IV ..	21′ × 10′ × 13′ ..	Supervisor's Shift room	1	2	8	1 wash basin and 1 cold water shower.
V	87′ × 41′ × 12′ ..	Workmen's shift room and meal room for X Section.	..	..	5	9 bread bins, 6 hangers, 1 shelf pigeon hole type, 2 racks, 2 wash fountains, 6 water showers, 2 cold water taps.
VI ..	78′ × 37′ × 12′ ...	Workmen's shift room and meal room for Y Section.	1	..	25	7 bread bins, 1 bench, 2 stands, 1 almirah, 1 shelf pigeon hole type, 16 cold water taps and 6 cold water showers.
VII ..	44′ × 41′ × 12′ ..	Workmen's shift room and meal shelter for Z Section.	1	..	..	1 shelf pigeon hole type, 2 racks, 6 stools, 1 wash fountain, 3 cold water showers and 1 tap.
VIII ..	19′ × 12′ × 13′ ..	Staff Shift room for Z Section	..	..	1	2 cupboards, 1 box, 1 cold water tap, 1 hot or cold water bath.

The dimensions of Jubbulpore shelters are 46′ 10½″ × 18′ 4½″ with 8′ verandah and the shelters are near the canteens. In the Ishapore factory, there is a shelter (140′ × 26′ 4″), a dining hall (140′ × 50′) and a tea canteen (51′ 9″ × 12′). The Cawnpore factory has built in war time three temporary sheds (55′ 6″ × 29′, 11′ × 12′ 6″ and 14′ 9″ × 21′ 9″) with wooden planks and paulin coverings. Shelters in the three depots are also of a temporary character. The dining shed (60′ × 12′) in the Kandivali depot is of wooden construction. In the Bhavnagar depot, there is a temporary shed with an area of 15,120 sq. ft. and having paved floor and iron walls. The shed houses a canteen and radio sets for the entertainment of employees. Most of the shelters are thus associated with canteens.

IV.—Welfare Activities.

Sanitary Arrangements, Water-Supply, Latrines, Urinals, Washing and Bathing facilities, etc.—As most of the ordnance depots are of a purely temporary character, sanitary arrangements in them are also of a similar type. Latrines and urinals have been built in semi-permanent brick-structures, having cement flooring. Water is supplied through taps, and in a few cases is filled in tanks. Most of the factories, however, are of long-standing and, hence, have permanent arrangements in this respect. Generally, sanitary arrangements in the factories are under the supervision of qualified sanitary staff with the necessary conservancy establishment. Latrines and urinals are permanent and have running water. The following details from a Jubbulpore factory are worth noting in this respect. "All the latrines and urinals inside the factory work by an automatic flushing system. Every latrine has been provided with two urinals with partitions at each end inside the latrine and two for the urinals. The flushing tanks of the latrines automatically flush at the interval of 20 minutes and the urinals at 10 minutes. The latrines and urinals are connected to the underground sewer lines which carry the sewage from them to the two aerobic chambers, which are situated outside the perimeter wall. The source of water supply is the Pariot Tank. This water is filtered and chlorinated in the fitter plant which is situated inside the factory and then supplied through G. I. pipes to the whole factory.... water-taps have been conveniently fixed near the sections, where the workmen are working.... where explosive work is being carried out, arrangements have been made in every change room for shower baths." Though in other factories, arrangements do not approximate to this standard, they are mostly satisfactory. As for the provision of cool water in summer, various measures are adopted. In a Jubbulpore factory, ice-water is provided while in other concerns various methods are used such as *chatties, Mudkas* or water-drums, filtered tanks, chlorinated wells, station reservoirs, water-carriers and most frequently, ordinary water-taps.

Medical Facilities.—This branch of engineering has provided a large number of well-equipped dispensaries and hospitals. Details in this regard are given in the table below :—

TABLE 230.

Arrangements for Medical Aid.

Area.	Medical Institutions.	No. of cases treated daily	Medical Staff—Qualifications and Remuneration (p.m.)	Remarks.
Kirkee	I—For two factories and one depot—		Doctors are provided by Government. There are 10 doctors : one I.M.S. Officer, 2 C.M.P. Graduates and the rest are Subordinate Medical Service Officers. Emoluments are fixed by the Central Government.	Range Hills Dispensary is in a Workers Colony and caters for women and children of workers residing in this colony and working in the two factories and one depot.
	(a) Inside the concerns—			
	(i) Detention Hospital—20 beds ..	..		
	(ii) Ammunition Factory Dispensary	305		
	(iii) ,, ,, First Aid Post ..	97		
	(iv) H.E. Factory Dispensary ..	85		
	(v) Scheme XII Dispensary ..	110		
	(b) Outside the concerns—			
	(i) Ordnance Factories Hospital (with 60 beds for men and 20 for women and children).	..		
	(ii) Range Hills Dispensary (for women and children).	125		
	II—Dispensary (inside another Depot in Kirkee).	100	1 Sub-Asstt. Surgeon (Rs. 150/- p.m.), 1 doctor (on Rs. 5/- p.d.), a compounder and a dresser.	A ward in the kirkee Cantonment General Hospital is also being used.
	III—Dispensary (inside a third Depot in Kirkee).	40	Captain I.A.M. Corps	Treat out-patients only.
Dehu Road* ..	I—For one Depot, there are 5 dispensaries (3 inside and 2 outside the depot).	250	3 L..C.P. & S. doctors—one gets Rs. 164/ p.m. and the other two get Rs. 5/- p.d. (& D.A. of Rs. 12/- p.m.) each.	The outside dispensaries are for workers' families.
	II—For another Depot, there are 3 dispensaries and one Detention Ward.	200	Sub-Asstt. Surgeon on Provincial Govt. scale + Rs. 72/- as allowances.	In addition about 100 cases of vaccination and inoculations are treated daily.
Jubbulpore ..	I—Dispensary (inside a factory) ..	197	5 doctors (1 L.M.P. ; 2 L.S. M.F. ; 1 L.C.P. & S. and 1 Lady S.A.S.—L.M.F. ; 3 on Rs. 160/- and 2 on Rs. 225/- each).	Besides, there is a dispensary and a 24-bedded hospital (for workers and their families) at two furlongs from the factory.

Area.	dical Institutions.	No. of cases treated daily.	Medical Staff—Qualifications and Remuneration (p.m.)	Remarks.
	II—Dispensary and Hospital	430	11 doctors (1 Lt.-Col. I.M.S. as Chief Medical Officer & 1 M.B.B.S. as Asstt. Medical Officer (Rs. 704/-) ; 4 Asstt. Surgeons (2 M.B.B.S ; 1 M.B.B.S. ; and 1 M.M.F.) on Rs. 330/- ; and 5 S.A.S. (1 L.S.M.F. and 4 L.M.P.) on Rs. 176/- each.	The hospital is outside the factory and caters both for factory workers and their family members.
Calcutta	I—An outdoor dispensary (inside the factory).	80	(i) Medical Officer—Capt. M.B., L.M. (Dub.), F.R.F.P.S. (Glas.), I.M.S. (Retd.) Rs. 325/. (ii) A.M.O.—L.M.F.—Rs. 160/-.	Serious cases are sent to Medical College Hospital or Indian Military Hospital, Alipore.
Ishapore	I—1 dispensary (inside one factory) ..	260	Medical Officer of I.A.M.C. (Rs. 700/-) 3 Asst. Surgeons (Rs. 330/- each).	One dispensary is inside the factory In-patients, male and female are treated in the Hospital.
	II—1 dispensary (inside another factory) In addition, there is a dispensary in the workers' colony and a hospital.	325	2 S.A.S. (Rs. 156/- each). 1 Lady S.A.S. (Rs. 220/-).	
Cawnpore ..	I—An Out door Dispensary ..	200	5 doctors (1. M.B.B. S.—Rs. 300/-, 2 L.S.M.F. and 1 L.M.F., L.I.M.—Rs. 152/- each, and 1 L.C.P.S.—Rs. 160/-.)	Treats out-patients only.
Sewree	I—Dispensary (in a Depot)	205	Doctor—L.M. & S. D.P.H. (Cantab)—Rs. 350/-.	
Kandivali ..	I—Dispensary (in a Depot)	50	A.S. (in I.A.M.C.) and on I.W.O. Compounder.	
Baroda	I— Dispensary (in a Depot)	30	Doctor—L.M.P.—Rs. 200/-.	
Bhavnagar ..	I—Depot M. I. Room	..	....	Serious cases are transferred to State Hospital.

* Besides, two more depots have a dispensary run by their common Welfare Centre in their Housing Colony.

The table shows that between 17 concerns there are four hospitals, twenty two dispensaries, one First-Aid Post and one Depot M.I. Room, exclusively for the use of workers in the ordnance concerns. In addition, various civil hospitals like the Sassoon Hospital in Poona and military hospitals like the Cantonment General Hospital, Kirkee, and the Military Hospital, Alipore are utilised by many ordnance concerns. In many cases, donations are given to these hospitals for services rendered. A Jubbulpore Factory, for example, annually contributes Rs. 6,000 to Victoria Hospital and Rs. 500 to Rs. 1,000 to Elgin Female Hospital. A Kirkee depot contributes from its Depot Welfare Fund to the Kirkee Cantonment Hospital. The prevalent diseases are petty indispositions, common colds and fevers, malaria, diseases of the respiratory system, gastro-intestinal diseases (in children), bronchitis, minor injuries, spiro-chalite-ulcers, thread-worn diarrhœa, etc. The common occupational disease is T.N.T. dermatitis. However, workers using lead paints or other lead compounds, creosote oil, leather, etc., are also open to the risks of industrial diseases. The following statement gives some details about occupational diseases in four factories.

TABLE 231.

Occupational Diseases.

Factory in	Unit.	Number of cases of occupational diseases.
Kirkee	1	Tetryal 36 ; Turpentine 34 ; and C. E. 154.
,,	2	C. E. Dermatitis 1 ; T. N. T. Dermatitis 15 ; Acid 3 ; T. N. T. Poisoning 1.
Jubbulpore	1	Chemical Dermatitis 1.
,,	2	T. N. T. Dermatitis 3.

Only in two concerns, both depots, there seems to be a regular periodical medical examination of all the workers. In a Dehu Road Depot, Splenic Index is taken once in six months, while in the Bhavnagar depot all employees are medically examined once a year. In some other concerns, only a few classes of workers, such as those working on lead and lead compounds, on explosives, in paints shops and in canteens, etc., are examined periodically.

Canteens.—All the ordnance concerns, with the exception of the depot in Cochin, have canteens. Some of them have more than one canteen ; for example, a factory in Jubbulpore and a depot in Dehu Road have four canteens each, while another depot in Dehu Road has five. In the case of depots, the larger number of canteens is due in some cases to the existence of sub-depots, which may be far away from the main establishment. In a depot in Kirkee, the canteen is situated outside the depot and hence four mobile tea stalls are placed inside the depot during lunch break and tea recess. In all the canteens, tea, light refreshments and cigarettes are served generally on coupon system. In five canteens, however, hot meals also are supplied. Out of the 21 concerns possessing canteens, only five have allowed their canteens to be run by military or private contractors ; the rest of the canteens are run and controlled by the Workers' Welfare Committees. Even though the articles are sold below the market rates, a large margin of profit is left. In fact, it was admitted that the Welfare Fund in some of the Dehu depots was benefitted in thousands, because of the profits from the canteens and the grain shops. A major part of the profits from the canteens, run by the Workers' Welfare Committees, goes to the Welfare Fund. In a Kirkee factory, for example, this part is 90 per cent, while in a Kirkee depot, a sum of Rs. 400 out of the profits is donated every month to the Welfare Fund.

Creches.—Female labour is far more prevalent in depots than in factories. However, only two depots, one each in Kirkee and Dehu Road, maintain Baby creches. In the Kirkee depot, babies are given free food, milk and fruits. Recreational and medical facilities are provided free of charge. In the Dehu Road depot, milk and medical attendance is given free to children. The average number of babies left at these two creches is 70 and 30 respectively. Besides these two creches, the workers' colony of two Dehu Road depots runs a creche by itself.

Education.—Twelve out of the twenty two concerns investigated have made some provision for the education of their workers' children, while only five out of them encourage the education of adult workers. The labour Welfare Department of the Ammunition Factory, Kirkee, has started a primary school in 10 tents in the Range Hills Estate (a colony of workers employed in two factories and one depot in Kirkee). Nearly 360 children are attending the school, receiving education in Marathi, Tamil, Hindi, Urdu and English. In the same school, between 3 p.m. and 5 p.m., the mothers and grown-up sisters of the school children come for their education and the subjects taught are cutting, sewing, reading and writing, balanced diet, household management, fancy needle-work and knitting. In addition to this school, an annual grant of Rs. 4,000 is paid to a private school for the education of workers' children during day and for workmen during night. The workmen of a Kirkee depot, who attend this Night School, are allowed to draw half an anna per day to meet the school fees. Another Kirkee depot bears the tuition fees of the workers, who attend the Night School. In a Jubbulpore factory, the recurring expenditure on Primary and Secondary Schools is about Rs. 40,000 a year, out of which one-third is borne by the Provincial Government and two-thirds by the Factory, *i.e.*, by the Central Government. Of the initial expenditure for the construction of buildings, etc., the proportion borne by the factory is also two-thirds. The factory has arranged a bus-service to take those children, who go to the city (about 4 miles) or other distant schools. Two of the Dehu Road depots, which employ a number of children inside the depots have made arrangements for their education in the afternoon every day. These schools are financed entirely out of Welfare Funds. The workers' colony of other two depots in Dehu Road maintains a small school, unaided by the factory, for the education of the children of workers staying there. In the workers' colony (Northland Workmen Line) of the Ishapore factories, a Primary school for the education of children up to 8 years of age is maintained ; this school is partly supported by the Government of Bengal. An English High School has also been started in the Northland Estate with effect from the 1st January 1945. The Cawnpore factory also maintains a primary school for the education of workers' children. Attempts for the education of adult workers met with failure in a number of factories. In a Kirkee factory, for example, literacy classes in English, Hindi and Marathi were conducted in different sections during recess time for nearly six months. These classes, though popular, had to be discontinued because of lack of voluntary teachers. However, arrangements are being made in the Range Hills Estate to have adult education classes in the evening between 8 p.m. and 10 p.m. In Ishapore there was a free Night School for the education of adult workers, but it had to be discontinued due to the introduction of extended hours of employment on mobilisation. In the Kandivali depot, daily literacy classes are run under the supervision of the Labour Officer. In a few concerns, facilities exist for vocational education of workers and their children.

Grain Shops.—Fifteen out of the twenty concerns have opened grain shops for their workers. In Kirkee and Ishapore, workers have co-operative societies which supply not only rationed articles at controlled rates but also other household articles such as hosiery, cutlery, cloth, etc., below the market rates. The Co-operative Society in Kirkee sells the articles at 12 per cent above the cost price. Some concerns have more than one shop ; for example, a Jubbulpore factory has five ration shops. The articles sold in most of the shops are rationed grains, sugar and kerosene. In the Cochin depot, however, only rice is sold. The prices in most cases are identical with local rationed prices, though a few shops give some concession. The prices in the Cawnpore shop, for example, are fixed by the Employers' Association of Northern India and they are in all cases lower than the market rates. Similarly the Ishapore Co-operative Stores sells rice and atta to workers at rates which are lower by half an anna per seer than those prevailing in the market (i.e., controlled rates).

IV.—Housing Accommodation.

Most of the ordnance establishments experienced a sudden expansion in employment during war time, with the result that the problem of housing became difficult. The problem became more acute because of the fact that most of the ordnance concerns were established in rural areas. To meet this emergency, workers' colonies, generally under the management of the ordnance authorities, were set up. Such colonies at present exist in Kirkee (Range Hills Estate), Dehu Road (Labour Camp), Jubbulpore, Ishapore and other places. The following two tables give some details about housing provided by employers in the concerns investigated.

TABLE 232.

Housing Provided by Employers.

Centre.	Concerns.*	Proportion of workers housed.	Types of housing provided.**	Rentals Rs.	Remarks.
Kirkee	F	4·6%	'R' type quarters	1-8-0	These are in Range Hills Estate @
	F	13·0%	'R' and 'RA' types	1-8-0 & 2-0-0	
Dehu Rd.	D	5·0%	'R' type	1-8-0	
	D	10·0%			
	D	10·0%	Chatai walls and tiled roofs	free	Workers' colony @
	D	8·0%	Chatai walls, partitions and tiled roofs	,,	In addition workers live in Bye-pass Coolie camp Dehu @
	D	10·0%	'C' type quarters	,,	
Jubbulpore	F	13·0%	'P', 'Q' (New & Old), 'R' (New & Old) types and single-men's quarters (one room 18′×20′ for 6 persons).	0-9-0 to 5-10-0	Worker's colony.
	F	62·76%	'RA', 'R' and 'S' types and Barrack type (76′×21′ for 48 men)	1-2-0 ; 0-14-0 and 0-12-0	Worker's Colony @
Ishapore	F	24·0%	'N', 'P', 'Q' types and quarters for single and married men	0-12-0 to 11-4-0	Worker's Colony.
	F	20·0%			
Cawnpore	F	5 workers	Single tenements	0-12-0	
Kandivali	D	25·0%	Long sheds, barrack type	Free	

@ Further details of these colonies are given in the next table.
*D—Depot and F—Factory.
**The details of the various 'Types' of quarters mentioned in this column are given in the following table.

TABLE 233.

Types of Quarters.

Type	Rentals	Details.
	Rs.	
'N'	11-4-0 (Ishapore)	3 rooms } and kitchen, bath-room, verandah and compound
'P'	5-10-0	2 rooms } with independent water-taps and latrines.
'Q' Old		4 rooms }
'Q' New	2-8-0 (Jubbulpore and Ishapore).	2 rooms, bathroom, kitchen verandah and compound.
RA	2-0-0 (Kirkee)	2 rooms (12′×9′ each), kitchen (8′×6′) verandah (6′×4′) and courtyard.
	1-2-0 (Jubbulpore)	14′×12′ including bathroom 5′×4′.
R	1-8-0 (Kirkee)	1 room (12′×10′), kitchen (8′×6′), verandah (6′×4′) and court-yard (14′×12′ including bathroom 5′×4′).
	0-14-0 (Jubbulpore)	
S	0-12-0 ,,	1 room (12′×10′), kitchen (8′×6′), and verandah (6′×4′).
,,	2-4-0 (Ishapore)	Supervisors' temporary war type quarters.
,,	3-0-0 ,,	Married workmen's war type quarters (2 rooms).
,,	0-12-0 ,,	Single ,, ,,
,,	1-4-0 ,,	Married ,, Peace ,,
,,	1-0-0 ,,	Single ,, ,, ,,

Range Hills Estate is a colony set up in 1942 by the ordnance authorities for the staff and workers of two factories and a depot in Kirkee. It is about three miles from Poona and about a mile and a half from the Kirkee ordnance factories. The quarters are of several types, of which 'RA' and 'R' are meant for the workers. Towards the end of 1944, 23 RA type quarters and 1,322 R type quarters were allotted to workers. The quarters are brick-built and are barrack-type. Latrines are common, while separate water-taps are provided only for RA type quarters. For R type quarters, water-taps are common, 2,000 gallons of water are supplied free of charge to every quarter per month ; the cost of this free supply of water comes to Rs. 1-4-0 per month. The Superintendent of the Ammunition Factory is responsible for the administration of quarters and he has qualified sanitary and conservancy staff to look after the sanitation of the Estate. In April 1944, a census of the persons was taken and it was found that 23 RA type quarters were occupied by 70 persons and 5,399 persons (1,771 males, 1,705 females and 1,923 children) lived in the 1,276 R type quarters. In the R type, on an average 4.2 persons lived in a tenement. However, in some cases the proportion was very high. The following are a few examples.

TABLE 234.

Congestion in Range Hills Estate.

Tenement	Number of persons living in a 'R' type quarter.*			
	Men	Women	Children	Total
I	5	3	8	16
II	4	4	5	13
III	4	3	6	13

*For area of this quarter see the preceding table.

The Estate has a school, a grain shop and stores conducted by the Co-operative Society and a dispensary for the workers and their families.

The Labour Camp organised by the Labour Officer of the two Dehu Road depots presents a different picture. The camp consists of 400 family rooms (20 blocks with 20 rooms each) and 10 ' bachelor blocks '. Each of the family rooms has 10 ft. × 7 ft. area and the walls are made of ' chatai '. The rooms are overcrowded ; some of them house two families while a number of workers sleep outside the rooms. Each room has a small verandah, where an oven is kept. In front of each room, there is a small garden, where workers grow vegetables and flower-plants. These 400 rooms have only 4 water-taps for drinking purposes and 2 cement water tanks (each 8 ft. × 4 ft.) for bathing and washing purposes. The ten ' bachelor blocks ' are practically medium-size halls, intended mainly for sleeping, though the workers cook their food also there. At present, the best features of the Camp are a School (with separate classes for boys and girls), a sort of nursery or creche and a small dispensary with three beds—all run by the Welfare Committee of the two depots. The School and the Nursery are in one building. About 60 children are on the rolls of the school but no benches have been provided. Wooden slates are supplied free. In the Nursery, a female nurse looks after the babies, brought there by their elder brothers or sisters, who are students of the school. The parents leave their homes before 7.30 a.m. for the depots, leaving the infants to the care either of their grown-up children or their neighbours. The complaint of the School authorities was that soon after the boys learn to read and write, they try to be office-boys in the adjoining depots. The dispensary contains a small maternity ward with one bed. About 50 to 55 out-patients are treated every day. The Depots bore the cost of building and furniture, and medicines worth about Rs 600 were bought out of the Welfare Fund. Sanitation and arrangements for water-supply are far from satisfactory. Latrines have walls of torn gunny bags, and are uncovered. The walls of family rooms are built of combustible *chatais*. In fact, in October 1944, two blocks of rooms were burnt.

The workers' colony of a Jubbulpore factory where more than 8,000 workers reside, is about 2 furlongs from the factory and extends to a mile and a half. Communal latrines and urinals on water-carriage system have been provided and they flush intermittently. Water is stored in a reservoir known as Pariot Tank. Water fetched through a canal, receives chemical treatment and the filtered water is supplied through G.I. pipes to all residential quarters. Workmen's quarters are served water from public stand pipes, where washing and bathing is allowed to a limited extent. One water tap with ½ in. or 3/4 in. bibcock is provided at common stand post for each block of 6 ' RA ' or 12 ' R ' or ' S ' quarters ; 4 communal flush latrines have been provided for each colony of 26 blocks. On an average five persons live in each quarter.

With the exception of workers in a Jubbulpore factory, more than 75 per cent of workers in the ordnance concerns are not provided with any housing by the employers. Many of these workers come from the adjoining towns such as Poona, Jubbulpore, Bombay and Baroda or from the villages nearby. A survey of ' where and how the workers come to the factory ' was carried out by a Kirkee factory and the following results were obtained.

TABLE 235.

Where and How the Workers Come to a Kirkee Factory.

Distance from factory.	Within a mile.	1 to 5 miles.		6 to 10 miles.		11 to 15 miles.		16 to 20 miles.		Total over 1 mile.		Total.
Conveyance	..	Cycle	Foot and train	Cycle	Foot and train	Cycle	Foot and train	Cycle	Foot and train	Cycle	Foot and train	
Number of workers.	9,322	2,688	5,340	2,137	1,007	384	39	29	1	5,328	6,387	21,037

Note: There are about 1000 Persons going out every Month and coming in, but while the man will not be the same, the proportion remains somewhat the same.

A local train service (with five locals in the morning and five in the evening) runs between Poona and Dehu Road (a distance of 16 miles), while a bus service caters for Jubbulpore and Khamaria (a distance of 8 miles). However, the workers have to make their own arrangements in this respect.

In most of the cities the question of housing accommodation has become acute, because of the enormous influx of population in war time. The conditions of workers, who live in the slums of these cities, are very unsatisfactory. Sanitary arrangements are inadequate and epidemics like plague and small-pox are common. A certain percentage of labour, which comes from villages, also lives in similar conditions. The Bye-pass Coolie Camp of Dehu Road provides a vivid illustration. The establishment of a number of depots in Dehu attracted a lot of labour from far-off Provinces, and because of the lack of housing provided by the employers, they erected *ad hoc* huts in the open areas near the railway station. In course of time it became an overcrowded and insanitary colony. After some time the military authorities took interest in the colony as most of the workers were their employees. The huts were arranged in regular lines; roads were chalked out and open drainage arrangements were made. The place was made a protected area by driving out undesirable characters, such as money-lenders. Shops were allowed to be set up and a dispensary and a school were also established. At present the colony accommodates nearly 7,000 labourers of all depots. These workers get the land free and they erect their own huts of 'chatai'. Even now conditions are far from satisfactory. The dispensary with its limited hours does not cater adequately for the needs of the workers. Arrangements for the supply of water are unsatisfactory; drinking water for 7,000 people is available from only one well, which also is not kept in good condition. There is another well of saltish water. As for congestion, the average number of persons per hut is 5 to 6. In many cases, the number is even larger as can be seen from the following figures:

TABLE 236

Congestion in Bye-pass Coolie Camp of Dehu Road.

Huts	Number of persons living in a hut*.				
	Men	Women	Boys	Girls	Total
A	7	3	4	..	14
B	7	4	2	1	14
C	10	1	..	..	11
D	9	1	1	1	12
E	6	5	..	..	11
F	4	4	..	..	8
G	4	4	1	..	9
H	3	7	1	..	11
I	..	7	..	..	7
J	..	6	..	..	6
K	..	6	2	1	9
L	..	8	1	..	9
M	4	5	4	..	13

* The area of the hut is usually 7′×4′.

V.—Trade Unions and Strikes.

Trade Unions.—The very nature of the ordnance concerns discourages the formation of trade unions in this industry by 'outsiders'. Of the concerns investigated, only two factories (one each in Jubbulpore and Calcutta) mention the existence of trade unions among their workers. The Jubbulpore Union, though registered and recognised by employers, has been inactive in war time. The union in Calcutta was awaiting the recognition of the Government of India. Old issues of the Labour Gazette, Bombay, make references to the 'High Explosive Factory Workers' Union, Poona, established at the end of the year 1941, with a membership of about 100. This union, it appears, came into existence after a minor strike. After a short existence of about eight months, the union, still unregistered and unrecognised, fell into a state of moribund inactivity, when some of its leaders were arrested during the 1942 disturbances.

Workers' Welfare Committee.—The Labour Department of the Government of India advised the ordnance establishments to set up a Labour Welfare Committee in each concern to enable the workers to represent their difficulties. A 'Model Constitution' put forward by the Labour Department and the A.D.G. (Ord. Fy.) letter No. Z-00587|TE|OF-12A of 12th July 1944 are given in Appendix VII. This Model Constitution was adopted by most of the ordnance concerns, though they made a number of important changes, suitable to the particular conditions. Out of the 22 concerns investigated, 16 have set up Workers' Welfare Committees. In a Dehu Road Committee all the members were nominated, provisionally. In a Kirkee depot, the Committee is known as the E.T.E. Employees' Welfare Fund and the rates of subscription for the E.T.E. are :

Monthly earnings.	Rate of subscription (annas p.m.).
Up to and including Rs. 50	1
Over Rs. 51 but under Rs. 101	2
Over Rs. 101 but under Rs. 151	3
Over Rs. 151 but under Rs. 201	4
Rs. 201 and over	6

In a few cases, Voluntary subscriptions are also collected. For example, in a Kirkee factory, boxes are sent round on pay-days. Voluntary donations in these boxes amount to Rs. 200 per month and are utilised for cash and medical benefits to the sick and injured, funeral aid, teachers' pay in primary schools, aid to schools, recreation, entertainment, cycle insurance, etc.

Strikes.—The fact that most of the concerns have been started only recently and that the nature of the industry precludes the formation of effective unions, account for fewer strikes here than in many other industries. Moreover, most of the strikes have been summarily dealt with by the authorities and hence they have been usually of not more than a few days' duration. A Kirkee factory and a Sewree depot report the occurrence of 2 or 3 minor disorganised strikes in each. A Jubbulpore factory, established only in February 1942, experienced 9 strikes in two years. Details of strikes in other concerns are given below. It may be seen that no strike has lasted for more than a week, while a majority of strikes were settled in a day's time.

TABLE 237.

*Strikes**.

Centre	Concern	Date when strike		Cause	How settled
		Commenced	Ended		
Calcutta	Factory	16-5-1944	20-5-1944	..	..
Cawnpore	Factory	4-10-1940	9-10-1940	(*i*) Misunderstanding due to wrong translation of word prosecution as 'conviction'. (*ii*) Demand for bonus.	Negotiation and explanation.
		11-7-1941	12-7-1941	A workman was arrested on account of an assault on the Foreman.	Negotiation.
		5-8-1941		Protest against disciplinary action.	No negotiation.
		11-5-1943	17-5-1943	Demand for bonus increase.	
Bhavnagar	Depot	14-10-1943	16-10-1943	Demand for wage increase.	On explaining to workers that the rates compare favourably with local rates, they returned to work.
		26-4-1943	2-5-1943	,,	Demand not granted. Workers resumed work. Instigators were discharged.

* Details of strikes (1942-44) in a Jubbulpore factory are given in Appendix VIII.

Sixteen out of the twenty-two concerns replied that there were no strikes by their workers.

VI.—General.

Accidents.—The following table gives details about accidents which occurred in some of the concerns investigated, during 1943.

TABLE 238.

Accidents in 1943.

Centre.	Concern.	No. of accidents.	Accidents for which compensation was paid.	Amount of compensation.	Remarks.
Kirkee	F	1915	1915	10,000-5-1	The cases include 1 of death, 6 of permanent disablement and 1908 of temporary disablement and the amounts of compensation paid were Rs. 1,050, Rs. 3.243-6-3 and Rs. 5,706-14-10 respectively.
	F	1056	8	4439-0-0	
	D	175	..	..	The cases are for 8 months (May-December 1943) only. In all cases injury pay (Rs. 629-1-0) was paid.
	D	61	1	1350-0-0	
	D	68	..	..	Injury pay (Rs. 1,112-13-0) was granted in all cases.
Dehu Road	D	95	..	..	Injury pay was granted.
	D	65		..	
	D	17	2	1800-0-0	The two were fatal cases. In other cases, injury pay was granted.
	D	3	3	2208-0-0	All three were serious cases.
Jubbulpore	F	1299	17	102,889-2-11	
	F	268	2	798-0-0	In other cases, injury pay (Rs. 1,560-3-3) was paid.
Calcutta	F	37	1	210-0-0	
Ishapore	F	786	6	2493-1-0	In 780 cases, injury pay (Rs. 5,645-3-9) was paid.
	F	31	31	16,357-11-10	
Cawnpore	F	1163	6	2017-0-0	
Sewree	D	288	19	8189-0-0	
Bhavnagar	D	37	..	..	Injury pay was paid in all cases.
Cochin	D	1	..	..	Case had been referred to W.C. Commissioner, Madras.

Indebtedness.—Workers usually take loans from the Pathan or Bania money-lenders at exorbitant rates of interest, varying from 2 as. to 4 as. per rupee per month i.e., between 150 and 300 per cent per annum ! It was estimated at one depot that most of the labourers were involved up to at least half of their monthly emoluments. The Labour Officer of a Kirkee depot conducted an enquiry into indebtedness among the workers of the depot. Some of his observations are worth noting : " During the year 1944, 75 cases of indebtedness were officially reported. Many more remain unreported for one reason or the other. Majority of these had dealings with the Pathans who are charging interest at 4 as. per rupee. The cases involved extended from a paltry sum of Rs. 5 to Rs. 200.....Among labourers, who comprise more than 60 per cent. of the Depot staff, indebtedness is general..... It is considered that the dearness allowance granted is in no way adequate to gap the hiatus between the cost of living figures taking 1939 as the base and the prevailing inflated costs. The common fallacy that the general indebtedness of the worker is due to extravagance on cedemonies connected with marriages, funerals and festivals is not supported by the results of the investigations.

To discourage workers from taking loans from outsiders, the best method is to grant loans through a Co-operative Society. The investigation, however, only showed the existence of only 6 such societies, one each in Kirkee, Jubbulpore, Calcutta and Cawnpore and two in Ishapore. The interest charged by three of these societies (one each in Kirkee, Ishapore and Cawnpore) is at the rate of 9⅜ per cent. per annum or Re. 0-12-6 per month for a loan of Rs. 100. The rate of interest of the other society in Ishapore was 6¼ per cent per annum ; the total amount of loans due from members of this Society on 1st April 1944 was Rs. 4,72,728. The lowest rate of interest is charged by the Society in Jubbulpore ; it is 4 per cent. per annum. The Co-operative Society in Kirkee caters for two factories and one depot. It also runs a Thrift Fund which helps members to save a little monthly. In all Societies, loans are advanced subject to the usual conditions of length of service, limit of loan and available sureties. The loans are recovered from one's pay in small monthly instalments. In the absence of a Co-operative Society, two depots, one each in Kirkee and Dehu, give to their workers interest-free advances against the wages earned. A Co-operative Credit Society was considered impracticable, as most of the workers were extra-temporary. In the Bhavnagar depot, a Welfare Fund has been set up to provide interest-free loans in case of emergent needs.

Provident Fund.—For the workers in the ordnance factories, the Provident Fund Rules have been published under 'Indian Ordnance Factories Workmen's Provident Fund Rules' (Code No. MO-J 22. Manager of Publications, Lelhi). Subscription to the Fund is compulsory after 3 years' continuous service. The subscription is at a uniform monthly rate of one-twelfth of the emoluments of the subscriber. On the 1st October and 1st April of each year, the deposit account of each subscriber is provisionally credited with a Government contribution which is 75 per cent. of the amount of the contribution of the subscriber during the preceding half year. The rate of interest allowed is determined from time to time by the Government of India ; for the present, however, if is 5 per cent per annum. The full amount of Government contribution and interest thereon is conditional on a subscriber completing 15 years' continuous service or on his discharge or resignation for causes beyond his control and without his fault. None of the depots, except one in Kirkee has Provident Fund system, because all the workers are extra-temporary and hence are not entitled to any such Fund as per its rules. For the same reason, no pensions or gratuities are granted. It has been criticised that to prevent the extra-temporary workers from establishing any such claim a special provision has been made under Rule 25(iii) of Financial Regulations, Part I. that all those who have put in more than six months' service on 31st March of each year will be considered as technically discharged on that date and re-entertained with effect from 1st April succeeding.

Gratuities and Pensions.—Gratuities are paid where Government 'bonus', i.e., contribution to Provident Fund, with interest on the I.O.F.W.P. Fund falls short of the amount of gratuity admissible to workers. Pensions up to a maximum of Rs. 25 per month are admissible under exceptional circumstances only to those who retire after at least 35 years' exemplary services. Relevant rules regarding gratuities and pensions are given below : [from Government of India, Defence Department (Army Branch) letter No. 19912|X|MG.I. of 30th December 1936 to the Master General of Ordnance in India] :—

Para. 3. Gratuities will be granted according to the scale laid down in Para. 4 below and will be admissible in the following cases :

(i) Workmen on discharge owing to sickness outside their control, or old age, after long and approved service ;

(ii) Workmen of long service discharged on account of shortage of work ;

(iii) Workmen with qualifying service who leave or are discharged from the service for reasons other than those above ;

(iv) The family of a diseased workman coming under one or other of the above three categories ;

Note.—In the case of those who are or were members of the I.O.F.W. Provident Fund, however, they or if they die while serving, their families, as the case may be will only be granted gratuities if their accumulations (Government Bonus and Interest) in the Fund at the time of their retirement or death are less than the gratuity admissible and amount of Government Bonus with interest to their credit in the Provident Fund.

Para. 4. Gratuities will be admitted on the following scale :

(i) After a service of less than 5 years	Nil.
(ii) After a service of not less than 5 but less than 10 years	1 month's pay.
(iii) After a service of not less than 10 but less than 15 years	2 months' pay.
(iv) After a service of not less than 15 but less than 20 years	3 months' pay.
(v) After a service of not less than 20 but less than 25 years	4 months' pay.
(vi) After a service of not less than 25 but less than 30 years	5 months' pay.
(vii) After a service of not less than 30 years	6 months' pay.

In the case of daily paid men 24 days' wages will be considered as equivalent to one month's pay.

After 35 years' service the grant of pension to these men can be considered under the rules in the Adjutant General's Branch memorandum No. B.11927/1/A.G. 14, dated 12th October 1932.

CHAPTER IX.—MISCELLANEOUS.

Miscellaneous concerns form a large part of the engineering industry. They comprise factories engaged in the manufacture or repair of various iron or brass goods, miscellaneous iron and steel works, iron and brass foundries, the manufacture of bicycles, the assembling and repair of aircraft, the manufacture of surgical instruments and hospital furniture, etc. This section of the industry, like all other sections, has expanded enormously during war time as will be borne out by the following table showing the number of factories and the number of persons engaged therein from 1939 to 1943 :

TABLE 239.

Number of Concerns and Workers Employed.

Province	1939		1940		1941		1942		1943	
	No. of factories.	No. of Workers.	No. of factories.	No. of Workers.	No. of factories.	No. of Workers.	No. of factories.	No. of Workers.	No. of factories.	No. of Workers.
Madras	3	240	4	461	..	745	13	1,088	19	1,474
Bombay	94	3,351	101	3,431	..	5,740	127	7,056	139	7,542
Sind	6	206	5	183	..	257	5	185	4	143
Bengal	10	1,410	12	1,800	..	3,207	15	3,416	20	4,605
U. P.	9	224	14	351*	..	714	16	829	19	1,155
Punjab	21	992	22	1,181	..	2,291	61	3,360	46	2,856
Bihar	..	..	..	..	..	254	2	519	3	716
C. P. & Berar	..	..	..	..	..	..	..	..	1	..
Assam	2	132	2	124	..	36	1	35	1	220
N. W. F. P.	..	..	..	..	..	..	..	..	1	21
Baluchistan	3	136	3	160	..	171	2	54	2	63
Delhi	1	45	1	24	..	..	..	..	..	..
Bangalore & Coorg	1	33	1	26	..	29	1	46	1	45
Total	150	6,769	165	7,741	223	13,444	243	16,588	256	18,840

* Particulars of one factory were not available.

It is seen that more than half the number of factories and over 40 per cent. of the total number of workers employed in this group of concerns are in the Bombay Province. The selection of units for survey was, therefore, mostly confined to that area. Fourteen factories, 12 from Bombay, 1 from Bihar and 1 from Aundh State were surveyed. These factories are representative of the whole miscellaneous group of the engineering industry as will be seen from the following list of the factories selected and the nature of work each is engaged in:—

TABLE 240.

The Nature of Work.

Serial No.	Name of Factory.	Location.	Year of establishment.	Nature of Work.
1	Indian Hume Pipe Co.	Bombay	1931	Manufacture of cement and iron pipes.
2	Mukund Iron & Steel Works	,,	..	Iron and Brass foundry and general machineshop.
3	Swadeshi Electric Clock Manufacturing Co.	,,	1929	Assembling and manufacture of electric clocks.
4	Hind Cycle Ltd.	,,	1939	Manufacture of bicycles.
5	W. & T. Avery Ltd.	,,	1921	Repair of weighing machines.
6	E. Eyres & Co.	,,	1880	Manufacture of surgical instruments and hospital furniture.
7	United Engineering Corporation	,,	1928	Manufacture of miscellaneous iron goods.
8	Captain Ltd.	,,	1941	Manufacture of fountain pens.
9	Tata Aircraft Ltd.	Bombay-Santa-Cruz.	1942	Assembling of aircraft.
10	Tata Air Lines	,,	1932	Repair of aircraft.
11	Asbestos Cement Ltd.	Mulund	1937	Manufacture of asbestos sheets.
12	Tata Aircraft Ltd.	Poona	1943	Assembling of aircraft.
13	Indian Hume Pipe Co.	Jamshedpur	1923	Manufcture of cement and iron pipes.
14	Kirloskar Brothers, Ltd.	Kirloskarwadi (Aundh State).	1920	Iron and steel works.

I.—Employment.

That employment in the industry has increased enormously during war time is further borne out by the figures of employment in the sampled units which show an increase of 175.8 per cent and 185.9 per cent. in January 1944 and October 1944 respectively, over figures for employment in August 1939, as will be seen from the following table:—

TABLE 241.

Employment in Sampled Units.

Centre.	No. of units.	Number of workers employed.		
		August 1939	January 1944.	October 1944.
Bombay	8	995*	3,447	2,955
Bombay-Santa Cruz	2	69	712	733
Bombay-Mulund	1	514	881	965
Poona	1	..	677	1,284
Jamshedpur	1	183**	97†	97†
Kirloskarwadi	1	860	1,415	1,460
Total ..	14	2,621	7,229	7,494

* Figures for 3 factories were not available.

** Figure relates to August 1938.

† Figures relate to January 1945.

Note.—Three concerns, one each in Poona, Bombay and Santa Cruz, were established after 1939.

The workers are employed mostly on time rates. In fact only in two concerns, the Mukund Iron and Steel Works, Bombay, and the Asbestos Cement Co., Mulund, were workers engaged on a piece basis. In Mukund Iron and Steel Works, their number was 157 out of 402 in 1939 and 228 out of 819 in 1944; in the Asbestos Cement Company, they were 135 out of 514 in 1939 and 204 out of 881 in 1944. The percentage of piece workers to the total number of persons employed was 6.4 in 1939 and 3.1 in 1944.

Employment of Women and Children.—Women are employed only in three units, two in Bombay and one at Jamshedpur. They are engaged as sweepers or coolies. Total number of women employed was 9 in 1939 and 44 in 1944. Children are employed nowhere.

Contract Labour.—Contract labour was employed only in the Mukund Iron and Steel Works in pre-war time. The number of persons employed through contractors in this concern was 22 in 1939 and 120 in 1944. In 1944, the Indian Hume Pipe Company, Bombay also employed 75 men and 21 women through contractors.

Length of Service.—The length of service of the workers in 11 of the sampled units is given in the following table:—

TABLE 242.

Length of Service.

Centre.	No. of Units.	Workers whose length of service lies between							
		0 and 1 year		1 & 5 years.		5 &10 years.		10 years & more.	
		No.	Per-cent-age.	No.	Per-cent-age.	No.	Per-cent-age.	No.	Per-cent-age.
Bombay	5	529	31·9	1,014	61·2	88	5·3	26	1·6
Bombay-Santa Cruz	2	402	49·9	395	49·0	9	1·1	..	0·0
Bombay-Mulund	1	452	46·8	376	39·0	137	14·2	..	0·0
Poona	1	850	66·2	434	33·8	..	0·0	..	0·0
Jamshedpur	1	18	18·5	59	60·9	2	2·1	18	18·5
Kirloskarwadi	1	46	3·2	560	38·4	389	26·6	465	31·8
Total ..	11	2,297	36·6	2,838	45·4	625	10·0	509	8·0

It is seen that the large majority of workers in Bombay Province have less than 5 years' service only while hardly any have service of over 10 years. This is due, partly, to the fact that some of the units have been started only during the last five years and partly to the increase in employment during war time.

Classification of workers.—In two factories in Bombay and the one in Bihar there is no classification of workers as permanent and temporary. In several other factories all the workers are classified either as permanent or as temporary but with no special privileges except in one factory in Bombay, the United Engineering Corporation, where all the workers are considered as temporary but are entitled to 14 days notice on discharge or dismissal. In five factories only, are workers classified as permanent and temporary. The percentage of permanent and temporary workers in these factories is given in the following table :—

TABLE 243.

Temporary and Permanent Workers.

Factory.	Temporary workers. (Per cent.)	Permanent workers. (Per cent.)
Tata Air Lines, Bombay-Santa Cruz	27·4	72·6.
Indian Hume Pipe Co., Bombay	20·0	80·0
Mukund Iron and Steel Works, Bombay	19·0	81·0
Hind Cycles Ltd., Bombay	35·0	65·0
Kirloskar Bros., Kirloskarwadi	21·0	79·0

In the Tata Air Lines, Bombay, permanent workers are entitled to 15 days notice, if they are drawing below Rs. 100 p.m., and one month's notice, if they are drawing over Rs. 100 p.m. or 15 days or one month's pay respectively in lieu of notice. Only permanent workers who have completed one year of service are entitled to privilege leave. The leave is for 15 days for every completed year of service in the case of daily-rated and monthly-rated workers and 30 days a year for salaried staff. Again, only permanent workers are entitled to contribute to the provident fund or receive any bonus, if it is declared. In the Kirloskar Company there are no special privileges for the permanent workers except that they alone are admitted to the membership of the Provident Fund. In the other concerns permanent workers are given 14 days notice on termination of service. A fortnight's leave with pay in several units and 5 to 7 days casual leave with full pay in most of the concerns are given to all workers whether permanent or temporary.

Apprenticeship.—There is a well-defined apprenticeship scheme only in the Tata Air Lines where about 50 apprentices at a time are trained as aeronautical engineers. The apprenticeship period is 3 years. Apprentices should have passed the matriculation or any equivalent examination and be between 18 and 21 years of age. Apprentices are to pay a premimum of Rs. 1,000 before joining. They are paid a stipend of Rs. 14 per mensem in the first year, Rs. 30 in the second year and Rs. 40 in the third year. Apprentices are on probation for the first 6 months. They get 8 sectional holidays and 7 days' casual leave. They also get 4 weeks non-cumulative leave after the first and second year of apprenticeship. Apprentices can take the Government of India's Ground Engineers' Licences during the course of apprenticeship. The Company does not accept any responsibility for employing an apprentice as permanent member of the staff. The Tata Aircraft, both in Poona and Bombay, had a training scheme under which they trained young men for a period of 6 months paying them a stipend of Rs. 25 per month during the first three months and Rs. 35 during the remaining period of training. They were then engaged on a commencing pay of Rs. 1-8-0 to Rs. 2 per day. The period of training was counted towards service. The training scheme was discontinued in May 1943 at Poona and in May 1944 at Bombay. In Mukund Iron and Steel works and W & T Avery Ltd. a few men are engaged as apprentices at the age of 16 or so on a basic rate of 12 annas per day. Increments up to Rs. 1-4-0 per day are given to those who show improvement. The period of apprenticeship is counted towards service.

Promotions.—In both the Tata Aircraft concerns there are regular grades as well as regular increments of 4 annas every year or every six months for ordinary posts and Rs. 5 to Rs. 30 per year for supervisory posts. Workers as well as supervisors, are upgraded to higher posts if vacancies exist or occur in higher grades. In the Santa Cruz factory, however, coolies are not graded. In the Tata Air Lines there are three grades—mechanics ' grade, improvers' grade and cleaners' and coolies' grade—having annual increments of As. 6 As. 3 and 8 pies respectively. In Mukund Iron and Steel Works and in W. & T. Avery, Ltd., workers are graded and given increments. In the Indian Hume Pipe Co. workers are given a general increment of 2 annas after two years, if their work is satisfactory. Increments and promotion in all other factories depend on the discretion of the managers who generally consider ability, regularity of attendance, etc., in giving increments.

Labour Turnover.—Labour turnover in 10 factories in the sample in pre-war and war time is shown in the following table:—

TABLE 244.

Labour Turnover.

Name of concern.	Period.	No. of workers.	1939 Separations				Percent of monthly turnover.
			Retirement.	Dismissal.	Voluntary.	Total.	
Mukund Iron & Steel Works, Bombay ..	1939	286	..	..	77	77	2·2
Swadeshi Electric Clock Manufacturing Co., Bombay ..	August 1939	37	..	..	1	1	2·7
W. & T. Avery, Ltd., Bombay ..	1939	36	..	2	..	2	0·5
Captain, Ltd. Bombay	..	..	..	..	..	..	..
Tata Aircraft Ltd., Santa Cruz ..	..	..	..	..	..	..	..
Tata Airlines Ltd., Santa Cruz ..	..	..	..	..	..	..	..
Asbestos Cement, Ltd., Mulund ..	Sept. 1939	558	..	18	3	21	3·7
Tata Aircraft Ltd., Poona	..	..	..	..	..	..	..
Indian Hume Pipe Co., Jamshedpur ..	1938	183	..	41	..	41	1·9
Kirloskar Bros., Kirloskarwadi ..	1939	818	..	..	8	8	0·1

TABLE 244 (*contd.*)

Name of Concern.	Period.	No. of workers.	1943 Separations.				Percent of monthly turnover.
			Retirement.	Dismissal.	Voluntary.	Total.	
Mukund Iron & Steel Works, Bombay ..	1943	661	..	..	132	132	1·7
Swadeshi Electric Clock Manufacturing Co., Bombay ..	August 1943	77	..	..	9	9	11·6
W. & T. Avery, Ltd., Bombay ..	1943	75	..	..	3	3	0·3
Captain, Ltd. Bombay	..	..	..	..	..	..	..
Tata Aircraft Ltd., Santa Cruz ..	..	..	..	..	..	..	..
Tata Airlines Ltd., Santa Cruz ..	1943	193	..	70	35	105	4·5
Asbestos Cement, Ltd., Mulund ..	Sept. 1943	883	..	21	6	27	3·1
Tata Aircraft Ltd., Poona	..	..	..	..	..	..	..
Indian Hume Pipe Co., Jamshedpur	..	..	..	..	..	..	..
Kirloskar Bros., Kirloskarwadi ..	1943	1,231	..	..	30	30	0·2

TABLE 244 (*contd.*)

Name of Concern.	Period.	No. of workers.	1944 Separations				Percent of monthly turnover.
			Retirement.	Dismissal.	Voluntary.	Total	
Mukund Iron & Steel Works, Bombay ..	..	..	..	..	..	..	..
Swadeshi Electric Clock Manufacturing Co., Bombay ..	..	..	..	..	..	..	..
W. & T. Avery, Ltd. Bombay ..	..	..	..	..	..	..	..
Captain, Ltd. Bombay ..	1944	24	..	..	20	20	7·0
Tata Aircraft Ltd., Santa Cruz ..	1944	538	..	168	92	260	4·0
Tata Airlines Ltd., Santa Cruz ..	..	..	..	..	..	..	..
Asbestos Cement, Ltd., Mulund ..	Sep. 1944	945	..	66	21	87	9·2
Tata Aircraft Ltd., Poona	1-1-1944 to 31-10-1944	990	..	247	74	321	3·2
Indian Hume Pipe Co., Jamshedpur..	1944	97	..	48	7	55	4·7
Kirloskar Bros., Kirloskarwadi.. ..	..	..	..	..	..	..	..

The separations are in all cases due to dismissal or discharge or voluntary resignations. The causes of labour turnover are the migratory habits of the labourers, especially of unskilled workers who are mostly agriculturists. In Tata Air Lines, for example, high turnover is due to a large number of workers being dispensed with before the expiry of the service period which would make them permanent. This measure is deemed necessary in view of the poor quality of the available labour. In several factories workers are also discharged as a measure of disciplinary action for irregular attendance, etc. Distance of the factories from the city and want of satisfactory public conveyance cause a considerable number of voluntary quits.

Absenteeism.—Absenteeism figures were available only in a few factories. The percentage of absenteeism in these factories for 1939 and 1943 is given in the following table:—

TABLE 245.

Percentage Absenteeism.

Factory	Percentage of Absenteeism.	
	1939	1943
Mukund Iron & Steel Works, Bombay	..	9·0*
Swadeshi Electric Clock Manufacturing Co., Bombay	..	1·0
Hind Cycles Ltd., Bombay	..	8·0
Tata Aircraft Ltd., Santa Cruz	..	10·0
Tata Air Lines, ...	5·6	6·2
Asbestos Cement Ltd., Mulund	5·0	20·0
Tata Aircraft Ltd., Poona	..	12·0
Indian Hume pipe Co., Jamshedpur	..	5·0
Kirloskar Bros, Kirloskarwadi	6·0	10·0

*Figure is for 1944.

It is seen that absenteeism has increased during war time. The causes of absenteeism are illness arising from unsatisfactory living conditions, want of education and civic sense, migration to villages during agricultural season and the rains, increased demand for labour outside the factory, domestic affairs like marriages and funerals, etc. Several employers cite the increassed earnings during war time as a cause of increased absenteeism. Several disciplinary measures were taken to reduce absenteeism but with no great success. The Tata Aircraft in Santa Cruz—Bombay has exhibited posters in conspicuous places announcing that absence without permission restricts various privileges of the workers, affects their leave and is a bar to increment and promotion. By these and other measures they have been able to reduce absenteeism from 10 per cent. in 1943 to 5 per cent. in 1944 and to 2.5 per cent. during the last quarter of 1944.

Standing Orders.—The larger factories like Tata Aircraft, Indian Hume Pipe Co., Kirloskar Brothers etc., have works Service Rules embodying the terms and conditions of an employee's service. Hours of work, holidays, rates of overtime payment etc. are governed by Administrative Orders issued by the Managers from time to time. The smaller factories generally have no standing orders or service rules.

Recruitment.—In small factories the requirements for skilled and unskilled workers are met by asking those who are already employed to bring their friends or relations and selecting suitable men from among them. In the large factories unskilled workers are recruited locally, generally at the factory gate. Skilled workers such as turners, fitters, tool makers, pattern makers, etc. are recruited through the National Service Labour Tribunals or selected from among those applying through the post. Special classes of workers like firemen and wardens are sometimes selected on the recommendation of the Fire Services Department. General qualifications, previous experience and testimonials are considered in making the selection to skilled jobs. Sometimes candidates are asked to undergo trade tests and medical examination.

Labour Officers.—In the large factories there are Labour Officers or Personnel Officers or Staff Superintendents who enquire into the complaints and grievances of the workers and refer them to the Works Managers for final decision. In smaller factories there are no labour officers. The foreman, works manager or the manager looks into the grievances of the workers. In some concerns, Works Committees have been set up to deal with grievances of a general or collective nature.

II.—Wages and Earnings.

The rates of wages for a few select occupations in the sampled units in 1944 are given in the following table :—

TABLE 246.

Rates of Wages for Selected Occupations—1944.

Factory.	Turners.		Fitters.		Electricians.		Mechanists.		Moulders.	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Indian Hume Pipe Co., Bombay	1 8 0	3 10 0	1 8 0	3 10 0	..	..	..	..	1 6 0	3 8 0
Mukund Iron & Steel Works, Bombay ..	1 12 0	4 4 0	1 12 0	4 4 0	..	..	..	..	1 14 0	4 4 0
Swadeshi Electric Clock Mfg. Co., Bombay ..	1 4 0	2 0 0	..	..	..	..	..	..	..	..
Hind Cycles Ltd., Bombay	3 0 0	3 0 0	1 8 0	5 0 0	..	..	1 12 0	1 12 0	..	..
W. & T. Avery Ltd., Bombay	..	..	1 8 0	4 4 0	..	..	..	..	..	..
Tata Aircraft Ltd., Santa Cruz	..	..	1 8 0	5 0 0	1 8 0	5 0 0	..	..	..	..
Tata Air Lines Ltd., Santa Cruz ..	..	..	..	..	..	..	..	..	..	..
Asbestos Cement Ltd., Mulund	1 8 0	3 4 0	1 8 0	3 4 0	..	..	1 0 0	1 0 0	..	..
Tata Aircraft Ltd., Poona	1 8 0	5 0 0	2 0 0	5 0 0	1 8 0	5 0 0	..	..	1 8 0	5 0 0
Indian Hume Pipe Co., Jamshedpur ..	1 4 0	2 8 0	1 4 0	2 8 0	..	..	..	..	..	..
Kirloskar Bros., Kirloskarwadi ..	..	..	31 8 0*	31 8 0*	..	..	30 0 0*	30 8 0*	*29 0 0	*29 0 0

*Per month.

TABLE 246—*contd.*

Factory.	Welders		Carpenters		Blacksmiths		Apprentices		Coolies	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Indian Hume Pipe Co., Bombay	..	..	..	..	..	..	..	..	0 12 0	1 4 0
Mukund Iron & Steel Works, Bombay ..	..	..	..	..	1 12 0	2 8 0	0 10 0	1 0 0	0 12 0	0 15 0
Swadeshi Electric Clock Mfg. Co., Bombay ..	..	..	2 6 0	2 6 0	..	..	..	..	0 9 0	0 9 0
Hind Cycles Ltd. Bombay	2 0 0	2 12 0	3 0 0	3 0 0	3 0 0	3 3 0	..	..	1 2 0	1 4 0
W. & T. Avery Ltd., Bombay	..	..	..	..	..	..	0 12 0	1 4 0	1 2 0	1 6 0
Tata Air Ltd., Santa Cruz	..	..	1 8 0	4 0 0	..	..	1 3 0	1 3 0	1 0 0	1 8 0
Tata Air Lines Ltd., Santa Cruz ..	..	..	..	..	..	..	1 10 0	2 10 0	1 0 0	1 2 8
Asbestos Cement Ltd., Mulund	..	..	1 4 0	3 0 0	2 6 0	2 6 0	..	..	0 12 0	0 12 0
Tata Aircraft Ltd., Poona	1 8 0	5 0 0	1 8 0	4 0 0	..	..	25 0 0*	35 0 0*	..	..
Indian Hume Pipe Co., Jamshedpur ..	..	..	..	..	..	..	..	..	0 6 0	0 6 0
Kirloskar Bros. Kirloskarwadi ..	..	..	38 0 0*	38 0 0*	..	..	..	..	22 0 0*	22 0 0*

*Per month

Wages have increased by about 20 per cent. since 1939.

Dearness Allowance.—Dearness allowance is paid in all factories except the Swadeshi Electric Clock Manufacturing Company where basic wages have been increased in lieu of dearness allowance. Both the Tata Aircraft factories pay dearness allowance, at a flat rate of Rs. 0-12-6 per day for all daily-rated workers and at 10 per cent. of pay plus Rs. 11 with a minimum of Rs. 23-7-0 per month for salaried workers. The Tata Air Lines pay Rs. 19 per mensem for those whose monthly wages are Rs. 50 or less, 10 per cent. of wages plus Rs. 14 per month to those whose wages are between Rs. 50 and Rs. 100, Rs. 24 per month for wages between Rs. 100 and Rs. 120 and 20 and 25 per cent. of wages for mechanics and improvers respectively. One factory in Bombay pays dearness allowance according to the Bombay Millowners' Association rate, one at three-fourths of the Millowners' Association rate, and two at two-thirds the rate. One gives allowance according to the Cost of Living Index declared by the Commissioner of Labour. One factory gives dearness allowance at 6 annas per day to all workers and one at 12½ per cent. of wages. The factory in Mulund gives dearness allowance at a flat rate of 10 annas per day. The Indian Hume Pipe Company, Jemshedpur, gives dearness allowance at a flat rate of 10 annas per day and the Kirloskar Works in Aundh pays dearness allowances based on the Sholapur Cost of Living Index. In 1944 the dearness allowance in this factory was Rs. 18 per month for those getting below Rs. 25, Rs. 22-8-0 for those getting between Rs. 25 and Rs. 50 and 45 per cent. of wages for those getting over Rs. 50. The Absestos Cement Company, Mulund, was the first to start paying dearness allowance from December 1939. In most other factories, dearness allowance was started in 1941 and was increased from time to time.

Bonus.—The following seven factories paid bonus to the workers as shown in the following table:—

TABLE 247.

Payment of Bonus in 1941-1944.

Factory.	Number of Months' Wages paid as Bonus			
	1941.	1942.	1943.	1944.
Indian Hume Pipe Co., Bombay	..	1	1¼	..
Mukund Iron & Steel Works, Bombay	..	4	2	2
Hind Cycles, Bombay	..	..	1	..
W. & T. Avery, Ltd. Bombay	½	½	½	½
United Engineering Corporation	..	..	1	2
Asbestos Cement, Mulund	..	½	½ to 1	½ to 1
Indian Hume Pipe Co., Jamshedpur	..	..	½	½

Generally bonus is paid to those workers who have worked a prescribed number of days in a year or to those who have put in service continuously for one year. In some factories like Indian Hume Pipe Company, bonus is paid to all workers on the rolls. The Tata Air Lines were paying bonus equal to half to three months during pre-war time but they have stopped bonus since the beginning of the war.

Other Allowances.—The Tata Aircraft factory at Santa Cruz grants a 'Tarmac' allowance to those working on Tarmac, that is, preparation of aircraft for flight. The allowance is a compensation for work in the open and in the Sun and was started on 1st January 1945. Coolies, improvers and trainees are paid Rs. 0-2-6 per day, skilled workers Rs. 0-4-0 and salaried workers are paid 10 per cent. of salary subject to a maximum of Rs. 25 per month. The Indian Hume Pipe Company of Bombay pays Rs. 3 per month as heat allowance and shoe allowance for workers in the Steel Furnace Department and the Rolling Department. A production bonus of 4 annas per day is given to foremen and workers in the Process Department in the Asbestos Cement.

Earnings.—The average monthly wages and gross earnings for a few select occupations in seven factories are given in the following table:—

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TABLE 248.

Basic Monthly Wages and Gross Earnings, 1944.
(To the nearest rupee).

Factory.	Turners						Fitters.						Moulders					
	Basic Wages			Gross Earnings			Basic Wages			Gross Earnings			Basic Wages			Gross Earnings		
	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Avr.
Mukund Iron & Steel Works, Bombay ..	91	36	61	116	61	86	78	36	55	103	61	80	72	35	51	97	60	76
E. Eyres & Co.	76	36	55	97	57	76	150	22	57	171	43	77	..	..	..	..	..	..
Tata Aircraft, Santa Cruz	..	..	..	..	..	..	102	38	63	122	58	83	..	..	..	..	..	..
Asbestos Cement, Mulund	..	..	..	61	..	77	..	..	..	50	..	63	..	..	..	..	..	..
Tata Aircraft, Poona	91	52	57	115	73	82	91	52	..	21	79	..	96	92	94	116	110	113
Indian Hume Pipe Co., Jamshedpur ..	..	..	..	..	..	..	44	121	33	59	36	48	33	21	27	48	36	42
Kirloskar Bros., Kirloskarwadi	..	..	..	..	..	..	61	18	32	106	41	57	73	18	29	125	41	52

TABLE 248 (*contd.*)

Factory.	Carpenters						Blacksmiths						Coolies					
	Basic Wages			Gross Earnings			Basic Wages.			Gross Earnings			Basic Earnings			Gross Earnings		
	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Avr.	Max.	Min.	Avr.	Max	Min.	Avr.	Max.	Min.	Avr.
Mukund Iron & Steel Works, Bombay ..	..	..	..	..	..	..	65	36	55	90	61	74	..	..	..	..	..	..
E. Eyres & Co.	68	32	50	91	53	71	105	52	..	26	73	..	41	29	36	61	50	57
Tata Aircraft, Santa Cruz	110	38	68	30	58	82	..	..	..	..	..	..	41	25	27	63	45	48
Asbestos Cement, Mulund	..	..	49	..	..	64	..	..	..	..	..	..	..	..	24	..	..	40
Tata Aircraft Poona	84	65	..	120	95	97	50	23	33	70	43	50	33	20	23	58	43	..
Indian Hume Pipe Co., Jamshedpur ..	..	..	..	..	..	..	45	24	35	60	39	50	15	12	12	30	27	27
Kirloskar Bros., Kirloskarwadi	73	18	38	126	44	65	..	..	..	..	..	..	32	16	22	62	39	

It is seen that wages and earnings in the Bombay factories are generally the highest, while in Poona wages are higher than those paid in Kirloskarwadi or in Jamshedpur. Wages and earnings are the lowest in Jamshedpur.

Overtime.—Overtime work is compulsory in the three factories owned by the Tatas and in the Kirloskar Brothers. Generally overtime is paid for according to provision in the Factories Act. The Kirloskar Brothers pay for overtime at time and a half. In the Tata Aircraft factories and the Tata Air Lines, overtime in excess of 5 hours on Saturday up to 8 hours is paid at normal rate, overtime on week days in excess of 8 hours at 1-1|4 times normal rate and time in excess of 10 hours a day, time in excess of 60 hours a week and all work on Sundays is paid for at 1-1|2 times the normal rate. The Administrative staff, clerks drawing over Rs. 150 per month and works staff getting over Rs. 350 are not entitled to overtime payment. Overtime is recorded in registers or on time-cards in all factories except in the Tata Aircraft factory at Santa Cruz and the Indian Hume Pipe at Jamshedpur. The registers and time-cards are open to inspection, if required. The Tata Aircraft factory at Santa Cruz has obtained exemption from the Factory Inspector from maintaining separate overtime register as it keeps a separate pay-roll.

Fines and Deductions.—Only two factories, the Indian Hume Pipe Company, Bombay, and the Kirloskar Brothers. factory, impose fines. In six factories no deductions at all are made from wages. In others, deductions are made on account of income-tax, contribution to the Provident Fund, rental of quarters, loss of tools, grain supplied etc. In the Kirloskar Brothers factory fines are credited to the Company's account. The amount of fines does not exceed Rs. 10 a year. In the Indian Hume Pipe Company, Bombay, the amount outstanding in the Fine Fund on 31st October 1944 was Rs. 64-5-3. The fund is in charge of the manager and is utilised for *pooja* ceremonies by workers at Dassera etc.

Wage Period.—The wage period is one month except in two factories, Captain Ltd., at Bombay and the Asbestos Cement Company at Mulund, where it is a fortnight. In the Mukund Iron and Steel Works, permanent workers are paid monthly and temporary workers fortnightly. Payments in all cases are made within 10 days of the end of the wage period.

Closed days and Holidays.—Generally Sundays are closed days. If, however, there is another holiday during a week, Sunday is considered as a working day. Workers who are required to work on Sundays are generally given a day off during the week. The Asbestos Cement Company has obtained exemption from the Chief Inspector of Factories, Bombay, from Section 35 of the Factories Act in respect of one department working on a continuous process. In the Tata Aircraft factories, Tata Air Lines and in W. & T. Avery Ltd., paid holidays, 6 to 8 in a year, are also given.

III.—Working Conditions.

Shifts and Hours of Work.—Only a single day shift is worked in six factories (the Tata Air Lines, United Engineering Corporation, Captain Ltd., W. & T. Avery, E. Eyres & Co., and the Indian Hume Pipe Co., Jamshedpur). The hours of work are 8 to 9 with a spreadover of 9 to 10 hours. Generally only 5 hours are worked in Saturdays. In other factories, there may be as many as 7 shifts but for the majority of workers there is one general day shift. Different departments work different shifts. The hours of work in these shifts are 7-1|2 to 9, the majority of shifts working only 7-1|2 or 8 hours. The spreadover is 8 to 9-1|2 hours.

In the Mukund Iron and Steel Works, the Rolling Mill Section works for 12 hours both in the day and in the night shifts, resting alternate hours. In the Swadeshi Electric Clock Manufacturing Company, both the day and night shifts work 11 hours with a spreadover of 12 hours. Shifts overlap in two factories, the Tata Aircraft, Santa Cruz, and the Kirloskar Brothers' factory at Kirloskarwadi, in order to take over.

Ventilation, etc.—The conditions of ventilation, lighting, protection against heat, etc. are satisfactory in most of the factories. Rest shelters are provided only in two factories, the Kirloskar Brothers and the Mukund Iron and Steel Works. In the former there are three rest hours with bath rooms and in the latter there is a rest shed of about 1,000 square feet area. The premises of most of the factories are kept clean. Latrines and urinals are provided in adequate numbers. Washing and bathing facilities are, however, provided only in three factories. Most of the factories make arrangements for cool water in summer.

IV.—Welfare Activities.

Medical Aid.—There is no provision whatsoever for medical aid in any of the small factories in Bombay. The Indian Hume Pipe Company at Jamshedpur has an arrangement with the Tata Company whereby medical help is obtained for their workers. Dispensaries, mostly in charge of part-time doctors, are maintained in other factories. Treatment is free in all cases except when costly injections, patent medicines etc. are required. Only in two factories, the Asbestos Cement Company, Mulund and the Kirloskar Brothers factory, is free medical attention extended to the workers' families as well. In the Kirloskar Brothers factory dispensary a nominal charge of 2 annas per day is levied on workers or their dependents getting treatment. In this dispensary two small in-patient wards with two beds each are also maintained. Workers are medically examined at the time of appointment only in the three Tata concerns, the Indian Hume Pipe Company, Bombay, and the Asbestos Cement Company. Only in the Tata Aircraft factory, Santa Cruz, are workers periodically examined. No occupational diseases have been reported except for a case of lead poisoning in the composing department of the Kirloskar Printing press.

Canteens.—Canteens are provided in all except five small factories in Bombay. The canteens sell meals, light refreshments, tea, cool drinks etc. and are generally run by contractors, but prices are controlled by the management. In the Asbestos Cement Company, the canteen is run by a Consumers' Co-operative Society, formed by the workers themselves.

Schools.—Only two factories provide facilities for the education of the workers' children. In the Kirloskar Brothers factory, a primary school and a High School are maintained and financed by the management. The Asbestos Cement Company maintains only a primary school. In the Tata Aircraft factory, Poona, an attempt was made to educate the adult employees by paying for the education of 40 of them at the Algaonker Night School, Poona, but the attendance of these persons at school, was so discouraging that the attempt was given up.

Grainshops.—Grainshops are maintained in all factories except in five small factories in Bombay. The Indian Hume Pipe Company, Jamshedpur, had a grainshop but it had to be closed when rationing was introduced in Jamshedpur. In the Asbestos Cement Company, the grainshop, like the canteen, is run by the Consumers' Co-operative Society. In the grainshops of Kirloskar Brothers and the Hind Cycles, only rationed articles are sold while

in others rationed articles as well as non-rationed articles are sold at controlled prices. In the grainshops of Tata concerns TOMCO products are sold at cost price which is considerably less than market rates.

V.—Housing.

Housing accommodation for workers is provided only by the Tata Aircraft, Poona, the Kirloskar Brothers and the Asbestos Cement Company. The Tata Aircraft, Poona, provides about 20 to 25 per cent. of their workers with quarters. The accommodation provided consist of 30 rooms, each 24 ft.×20 ft. and 12 rooms each 20 ft.×12ft. for the benefit of single persons. The bigger rooms accommodate four persons each and the smaller ones three persons each. In addition there are 132 rooms each measuring 12 ft.×10 ft. for family people. Two bungalows in the City have also been rented by the Company for housing workers. Furnished quarters are provided for the senior staff. Five to 7-1|2 per cent. of pay is the rental charged which is much below the economic rent for these quarters. Four types of quarters are provided in the Kirloskar Brothers factory and are allotted according to pay and status. The workers are given single and double room tenements and the senior staff are allotted separate blocks. About 10 per cent. of the workers are housed in the colony and 5 per cent. of the investment cost is charged as rent. Nearly 50 per cent. of the workers in the Asbestos Cement Company are housed in the Company's chawls. The chawls are in blocks of 12 apartments each and each apartment consists of a room 10 ft.×8 ft. and a verandah 10 ft.×6 ft. The rent charged is Re. 1 per month from those getting less than Rs. 1-8-0 per day and Rs. 2 from those getting Rs. 1-8-0 or more. In the Indian Hume Pipe Company, Jamshedpur, skilled workmen who form about 15 per cent. of the total are supplied quarters rent free. The quarters consist of a room and a kitchen with brick walls and tiled roof. Sanitary arrangements etc. are satisfactory in all cases and there is no congestion as sub-letting is prohibited.

The workers who are not provided with Companies' quarters in these three factories and the employees of other concerns have to go long distances to attend the factories, most of which are situated in city suburbs. Only in the Tata Aircraft factory at Santa Cruz is any conveyance provided for the workers. A special bus service is run and Rs. 2-4-0 per month is deducted from the workers' salary towards conveyance charge.

VI—Trade Unions and Strikes.

Only the workers in the two Aircraft factories, the Indian Hume Pipe Company, Bombay, and the Kirloskar, factory have organised trade unions. The union in the Tata Aircraft, Poona, has been formed only recently. The Tata Aircraft Workers' Union, Santa Cruz, has a membership of 200 and the monthly subscription is 4 annas. The Hume Pipe Company Workers' Union, Bombay, was registered in May 1942 and was responsible for several strikes which ultimately forced the management to enter into an agreement with the Union in December 1942 and to concede a bonus and annual leave to the workers. The trade union in the Kirloskar factory has a membership of about 1,000 and the members pay an annual subscription of Re. 1.

Workers' Councils.—Workers' Councils are functioning in two factories, viz., the Tata Aircraft factory, Santa Cruz, and the Asbestos Cement Company, Mulund. Representatives of the workers are elected from different departments to the Council which looks into the grievances of workers. In the

Aircraft factory at Poona, the formation of such a council is under consideration. In the Kirloskar factory, a workers' council consisting of 20 members was set up in April 1942, but has now been disbanded after working for two years.

Strikes.—Strikes have occurred from time to time in several factories for various reasons such as demand for increased wages, dearness allowance or bonus, protest against overtime, compulsory work on sacred days etc. The following table briefly summarises the cause and the results of the strikes in different establishments :—

TABLE 249.

Strikes.

Factory.	Serial Number and date of strike.	Cause/Demands.	Result.	Remarks.
Indian Hume Pipe Co., Bombay . .	1 March-April 1942	Demand for dearness allowance according to Bombay Mill Owners Association scale; bonus ; increase in wages; recognition of union.	Compromise.	
	2 December 1942 .	Bonus ; annual leave with pay ; regular increment; improvement in working conditions.	Compromise.	
	3 August 1943-March 1944- .	Leave ; Bonus ; standardization of wages etc.	Compromise.	
Mukund Iron and Steel Works, Bombay .	1. January 1941 . 2. April 1942 . 3. March 1944 .	For Bonus	Not given.	
Hind Cycles Ltd., Bombay . . .	1.	War Allowance	Compromise	Sanctioned 75% of the Bombay Millowners Association rate.
E. Eyre and Co. . .	1. November 1943	Dearness allowance, bonus etc.	Compromise.	
United Engineering Corporation . . .	1.	Increase in wages.	Granted	
Captain Ltd., . .	1. 2.	Increase in wages Dearness allowance, etc.	Compromise	
Tata Aircraft, Santa Cruz	1.	Protest against overtime.	In favour of employers.	Disciplinary action was taken.
	2.	For half-day holiday on Eclipse day.	In favour of employers.	A few workers were suspended for 2 days.
Asbestos Cement Co., Mulund . . .	1. 30-11-39 to 5-12-39.	Higher wages	Granted	Besides this, on one or two occasions for minor disputes workers suspended work for a few hours.
Tata Aircraft, Poona .	1.	Half holiday on account of Eclipse.	Not granted.	
	2.	Demand for wages for 3 days when workers were laid off for failure of electric supply.	Compromise 2 days' wages granted.	
Kirloskar Brothers, Kirloskarwadi . .	1.	Increase in wages.	Granted.	

VII.—Safety Acts, etc.

The provisions of the Factories Act, Electricity Act, Payment of Wages Act, Workmen's Compensation Act, etc. are generally observed in all the factories. Occasionally, Sections 35 and 36 of the Factories Act are contravened and this is borne out by the inspection remarks of the Factory Inspectors. The Kirloskar Brothers factory is under the Factories Act of the Aundh State. So far, the State has not enforced the Workmen's Compensation Act but a Workmen's Compensation Scheme is under consideration in the State.

Occupational Diseases.—As alreary pointed out, only one case of lead poisoning has occurred so far and the worker concerned was transferred to another department. Chrome sores may be the only probable occupational diseases in Electro-plating Departments. Preventive ointments are given to workers in these departments. In several factories protective equipments such as goggles for workers on grinding machines, respirators for spray-painters, canvas gloves for those handling chains or wire-rope slings etc. are provided to workers.

Accidents.—The table below gives the number of accidents and compensation paid in respect of them in the specified factories during 1943.—

TABLE 250.

Accidents and Compensation Paid, 1943.

Factory	No. of accidents	No. of accidents for which compensation was paid.	Amount paid as compensation Rs. A. P.	Remarks.
Indian Hume Pipe Co. Bombay ..	31	18	1,239 14 6	Amount includes compensation for 2 cases in previous years.
Mukund Iron & Steel Works, Bombay	30	30	1,780 15 6	
Hind Cycles, Bombay	27	27	747 7 3	
E. Eyres & Co. Bombay	1	1	1,000 0 0	Loss of an eye.
Tata Aircraft, Santa Cruz	12	4	798 13 4	
Tata Air Lines, Bombay	11	11		Amount of Compensation not available.
Asbestos Cement Co., Mulund ..	24	22	239 8 9	
Tata Aircraft, Poona	7	1	473 3 0	
Indian Hume Pipe Co., Jamshedpur ..	1	1	120 0 0	
Kirloskar Bros., Kirloskarwadi ..	9	..		Free medical aid and leave with pay given.

In other factories there were no accident cases in 1943. In a few factories like those of Tata's compensation paid is usually more than that required under the Act.

VIII.—General.

Indebtedness.—It appears that in these concerns only a few workers are indebted. In the Tata Air Lines, permanent employees who contribute to the Provident Fund take loans from the Fund to the extent of 3 to 6 months' pay. Loans are advanced at 4 per cent. interest and only for *bona fide* requirements. The Swadeshi Electric Clock Manufacturing Company and the Hind Cycles give short loans to the workers free of interest. In the former 5 workers are indebted to the Company, the amount of debt varying from Rs. 80 to Rs. 350. In the Kirloskar factory about Rs. 27,200 are owed to the Company by about 400 workers who have taken loans for the purchase of additional land etc. The loans bear interest at 6 per cent.

Provident Fund., etc.—Provident Fund schemes exist only in four factories, viz., Tata Air Lines, Asbestos Cement Company, W. & T. Avery Ltd., and the Kirloskar Brothers factory. In the Tata Air Lines, membership of the Fund is compulsory for permanent employees getting Rs. 25 or more and optional for those getting less than Rs. 25 per month. The workers contribute 1|12th of the monthly salary or wages towards the Fund and the employers contribute an equal amount. In Kirloskar Brothers the Fund is optional and open only to permanent workers, contributions are 1|12th of wages by employees as well as employers. In W. & T. Avery Ltd., all employees drawing Rs. 20 or more who have had continuous service for 12 consecutive months otherwise than as probationers, are eligible to contribute to the Fund at the rate of one anna in the rupee of their wages, the company also contributing an equal amount. In this Company the workers become eligible to the benefit of the Company's contribution only after 30 years' service ! There is no pension or gratuity scheme in any of the factories.

CHAPTER X.—SUMMARY AND CONCLUSIONS.

I.—Employment.

Most of the branches of Engineering have made a considerable progress. The employment figures compiled from the *Factory Statistics* show that in 1939, 1,299 engineering factories, employing 274,576 workers, came under the Factories Act, these rose to 2.129 factories and 551,352 workers respectively in 1943. As can be seen from the following figures, our investigation showed a similar increase.

TABLE 251.

Employment in Engineering 1939 *and* 1944.

Industry.	No. of factories for which information was available.		Total No. of workers employed		Average No. of workers per factory		Percentage Increase (workers)
	1939	1944	1939	1944	1939	1944	
General Engineering ..	49	65	58,924	95,898	1,203	1,475	+ 23%
Electrical Engineering ..	34	43	12,427	16,354	366	380	+ 4%
Railway Workshops ..	41	45	41,688	55,836	1,017	1,241	+ 22%
Coach Building etc.	19	20	3,303	13,296	174	665	+282%
Kerosene Tinning etc. ..	3	3	1,701	4,196	567	1,399	+147%
Metal Stamping	8	8	1,220	2,514	153	314	+105%
Ordnance	9	22	12,907	109,637	1,434	4,984	+248%
Miscellaneous	11	14	2,621	7,494	238	535	+125%
Total ..	174	220	134,791	305,225	775	1,387	+79%

The industries which have expanded most are Coach Building and Motor Repairing and Ordnance, mainly because both were directly concerned with war-time requirements. Electrical Engineering shows the least expansion and one of its branches, the electrical generating and transforming stations, shows a decline in employment. Sometimes in the same industry, a few factories may show an increase, and others a decline. For example, out of the 8 metal stamping factories investigated, 5 registered a fall ; but still we find an expansion by 105 per cent. in the total employment because of expansion in others.

Female and Child Labour.—In 1939, only 4,947 female workers, i.e., about 3.7 per cent. of the total labour force, were employed. This number increased to 13,036 (i.e., 4.3 per cent) in 1944. Only 30 factories in 1939 and 45 in 1944, employed female labour. Most of the female labour was employed in General Engineering (Bihar factories) and in Ordnance Depots (Kirkee and Dehu Road). The relevant details are given below :—

TABLE 252.

Female Labour (1939 and 1944).

Industry.	No. of factories employing female labour.		No. of female workers employed in these factories.	
	1939	1944	1939	1944
General Engineering	12	15	4,402	5,244
Electrical Engineering	6	6	128	147
Railway Workshops	4	4	365	432
Kerosene Tinning	2	2	17	75
Metal Stamping	3	3	26	21
Ordnance	Nil	12	Nil	7,073
Miscellaneous	3	3	9	44
Total ..	30	45	4,947	13,036
Province				
Bombay	17	28	129	6,917
Bengal	7	7	679	629
Bihar (Jamshedpur)	6	6	4,139	4,704
C.P. (Jubbuplore)	Nil	1	Nil	534
Punjab (Lahore)	Nil	1	Nil	4
Mysore (Bhadravati)	Nil	1	Nil	103
Bhavnagar	Nil	1	Nil	145
Total ..	30	45	4,947	13,036

Almost all the female labour is utilised as sweepers and coolies; only a few are empolyed as skilled labourers, female searchers, etc. The employment of women in Bengal and Bihar factories is due to the fact that these factories are located near the mining areas, where women workers are available in large numbers. The large number of women workers in Bombay Province is due to their employment in ordnance depots, ten of which employed 6,394 female workers in 1944. The Jubbulpore and Bhavnagar factories in the above table are also ordnance concerns and those in Lahore and Bhadravati belong to General Engineering.

Except in General Engineering (1 factory) and Ordnance (11 concerns), child labour was absent, barring perhaps the employment of "office boys". The details of child labour are as follows :

TABLE 253.

Child Labour.

Industry	Province or State	Number of concerns employing children.		Number of children employed.	
		1939	1944	1939	1944
General Engineering ..	Bihar (Jamshedpur)	1	1	163	374
Ordnance	Bombay	1	9	72	932
	C. P. (Jubbulpore)	..	1*	..	238
	Baroda	..	1	..	7

* This concern is an ordnance factory; the other 10 concerns are ordnance depots.

Piece-rated Labour.—As many as 10,544 workers (i.e., 7.8 per cent of the total labour force) in 1939 and 42,952 workers (i.e., 14.1 per cent) in 1944 were paid at piece rates. Payment at piece rates is most common in ordnance factories, as the following table suggests.

TABLE 254.

Piece-rated Labour.

Industry	Factories paying Piece rates.		No. of piece-rated workers.		Main centres of piece-rate payments.
	1939	1944	1939	1944	
General Engineering	9	13	1,753	3,869	Calcutta, Jamshedpur Bombay, Baroda.
Electrical Engineering	2	3	348	596	Calcutta Jamshedpur.
Railway Workshops	2	2	1,693	4,471	Kharagpur, Makafda.
Metal Stamping	4	4	309	125	Bombay.
Ordnance	5	7	6,149	33,459	Kirkee, Calcutta, Ishapore, Jubbulpore, Cawnpore.)
Miscellaneous	2	2	292	432	Bombay.
Total ..	24	31	10,544	42,544	

Piece-rated labour is mainly used in moulding and smithy shops. In the ordnance factories, it is used in a number of other shops.

Contract Labour.—Contract labour is more common in General Engineering and Metal Stamping than in other branches of engineering. In 1939, only 1,551 workers (i.e., 1.2 per cent) constituted contract labour in the concerns investigated. The number increased to 7,855 (i.e., 2.6 per cent.) in 1944. The relevant figures are given below :—

TABLE 255.

Contract Labour.

Industry	Factories having Contract Labour.		Number of labourers employed through contractors.	
	1939	1944	1939	1944
General Engineering	8	16	875	4,185
Electrical Engineering	1	2	164	697
Railway Workshops	2	2	52	2,442
Coach Building etc.	1	1	134	52
Kerosene Tinning etc.	..	1	..	32
Metal Stamping	4	4	304	93
Ordnance (Depot)	..	1	..	138
Miscellaneous	1	2	22	216
Total	17	29	1,551	7,855

Note : Figures of contract labour in a few concerns were not available.

Only a few workers (in General Engineering—189 in 1939 and 942 in 1944) are employed through contractors but paid directly; all other workers in the above table are employed and paid through contractors. Contract labour seems to be common in Bengal, Bombay and Bihar.

Length of Service.—Because of war-time expansion, a majority of workers have less than 5 years' service to their credit. As the following table shows stability of service is seen more in the Railway Workshops and in General Engineering than in other branches of engineering :

TABLE 256.

Length of Service.

Industry.		Number of Factories.	Workers employed	No. of workers who have served for			
				Less than one year.	1 to 5 years.	5 to 10 years.	Over 10 years.
General Engineering		41	88,461	17,557	34,445	15,578	20,881
Electrical Engineering		38	10,161	3,538	3,224	1,601	1,798
Railway Workshops		36	35,611	3,901	12,331	4,126	15,253
Coach Building etc.		15	12,921	3,343	8,502	601	475
Kerosene Tinning etc.		3	4,231	722	2,300	675	534
Metal Stamping		8	2,342	561	1,504	166	111
Ordnance		18	92,341	45,707	39,193	3,743	3,698
Miscellaneous		11	6,269	2,297	2,838	625	509
Total	Workers	170	252,337	77,626	104,337	27,115	43,259
	Percentage	..	100%	30.08%	41·3%	10·8%	17·1%

Temporary and Permanent Classification.—About one-third of the concerns investigated, have no classificaion at all; while an equal number treat all the workers as temporary.

TABLE 257.

Permanent and Temporary Classification.

Industry	No. of concerns investigated	No. of concerns where workers are			
		All temporary	All permanent	Classified.	Not classified.
General Engineering	65	15	10	22	18
Electrical Engineering	43	1	11	18	13
Coach Building etc.	20	7	5	3	5
Kerosene Tinning etc.	3	..	..	3	..
Metal Stamping	8	..	..	3	5
Ordnance	22	20	..	2	..
Miscellaneous	14	1	5	5	3
Total ..	175	44	31	56	43

NOTE : Railway workshops (numbering 45) have not been taken into consideration.

The rights and privileges of permanent workers differ not only from industry to industry, but also from factory to factory.

Apprenticeship System.—Altogether 82 factories in the investigated units (except railway workshops) have apprenticeship schemes.

TABLE 258.

Apprenticeship Schemes.

Industry.	Total No. of Concerns.	No. of concerns having apprenticeship system in								
		Madras	Bombay.	Bengal.	U.P.	Punjab.	Bihar.	C.P.	Mysore.	Total.
General Engineering ..	65	5	11	15	1	3	3	..	1	39
Electrical Engineering ..	43	2	9	11	1	2	1	..	..	26
Coach Building etc. ..	20	2	..	1	..	1	..	..	..	4
Kerosene Tinning etc. ..	3	..	2	..	..	..	..	..	..	2
Metal Stamping ..	8	..	1	..	..	..	..	..	..	1
Ordnance (factories)	22	..	2	3	..	..	..	2	..	7
Miscellaneous ..	14	..	3	..	..	..	..	..	..	3
Total	175	9	28	30	2	6	4	2	1	82

Labour Turnover and Absenteeism.—The rates of labour turnover and absenteeism vary considerably from industry to industry. In most of the industries (with some exceptions, such as railway workshops) these percentages have increased in war time. In the Ordnance industry, the absenteeism percentage, which was from 5—15 per cent. in 1939, increased in war time and was perhaps the highest in all the branches of Engineering. The average labour turnover varies between a very wide range, from 0.1 per cent. to 26.5 per cent. The least turnover is perhaps in Coach Building and Motor Repairing—between 2 and 3 per cent. The percentage of absenteeism also covers a wide range—from 0.5 to 19.0 per cent. in 1939 and 0.02 to 32.0 per cent in war time.

Standing Orders.—Employees in Railway Workshops are generally subject to rules of the State Railway Establishment Code. Similarly, Ordnance workers are governed mainly by the Standing Orders of the I.A.O.C. In both cases the standing orders are supplemented by rules framed by the Superintendent or Works Manager. Out of 153 concerns investigated in other branches of engineering, only 55 had Standing Orders or Service Rules or some conditions of employment. These concerns were distributed as follows :

TABLE 259.

Standing Orders in Concerns.

Industry.	No. of concerns investigated.	No. of concerns having Standing Orders in							
		Madras.	Bombay.	Bengal.	U.P.	Punjab.	Bihar.	Mysore.	Total.
General Engineering ..	65	4	8	1	3	1	2	1	20
Electrical Engineering ..	43	2	9	5	..	1	1	..	18
Coach Building etc. ..	20	1	2	2	1	..	..	..	6
Kerosene Tinning etc. ..	3	..	3	..	..	..	..	..	3
Metal Stamping ..	8	..	2	..	..	..	..	..	2
Miscellaneous	14	..	5	..	..	..	1	..	6
Total ..	153	7	29	8	4	2	4	1	55

Recruitment.—Most of the branches of Engineering felt in war time an acute shortage of labour, because of a sudden demand on labour. Unskilled labour is usually selected from amongst persons gathering at the gate or from amongst relatives or friends of existing workers. Skilled workers are recruited after interview and trade tests. Labour Bureaux, Selection Boards and Employment Exchanges form some of the machinery in the recruitment of skilled labour. One of the ordnance factories had an Officer on Special duty

(an I.C.S. officer) for recruitment of labour. We have already noted that as many as 29 factories employed a part of their labour through contractors.

Labour Officers.—Labour Officers seemed to be very common only in the Ordnance industry, where 21 out of the 22 concerns investigated had labour officers. In all 56 out of the 220 concerns under survey had labour officers distributed as follows :—

TABLE 260.

Labour Officers.

	Total No. of concerns investigated.	Number and location of concerns having labour officers.
General Engineering	65	13 Bombay, 2; Bengal, 6 ; U.P., 1 ; Bihar, 3 ; and Baroda, 1
Electrical Engineering	43	12 Madras, 1 ; Bombay, 9 ; U.P. 1 ; and Punjab, 1
Railway Workshops	45	1 Bengal, 1
Coach Building ..	20	1 Bombay, 1
Kerosene	3	1 Bombay, 1
Metal Stamping ..	8	1 Bombay, 1
Ordnance ..	22	21 Bombay, 13 ; Bengal, 2 ; U. P. 1 ; C. P., 2 ; Baroda, 1 Bhavnagar, 1 ; and Cochin, 1.
Miscellaneous ..	14	6 Bombay, 5 ; and Bihar, 1
Total ..	220	56 Madras, 1 ; Bombay, 32 ; Bengal, 9 ; U.P., 3 ; Punjab, 1 ; Bihar, 4 ; C. P., 2, Baroda, 2 ; Bhavnagar, 1 ; and Cochin, 1.

II.—Wages and Earnings.

Both wage rates and earnings differ not only from industry to industry but also from Province to Province. In addition, factors like the location of factory, allowances, supply of labour, lack of any standardisation of occupational terms, *ad hoc* increases in rates, etc. make it almost impossible to tabulate the wage rates and earnings of different groups of workers on a uniform basis. Earnings have increased since 1939 in almost all the industries and this increase is seen either in the form of wage increases or in the form of bonuses and allowances, or in the form of both. In the previous Chapters, wages and earnings in different industries were analysed generally according to the centres investigated, as there appeared to be more uniformity centre-wise.

Dearness Allowance.—Most of the Railway Workshops follow the scale of dearness allowance, prescribed by the Railway Board. Similar uniformity is also found in the Ordnance concerns, which are all owned by Government.

In the other branches of Engineering, various methods are used which can broadly be classified as follows :—

TABLE 261.

Methods of Dearness Allowance.

Industry.	No. of concerns investigated.	Methods of payment of dearness allowance.					No. dearness Allowance
		Flat rate for all	Different flat rates for different groups.	Sliding scale based on cost of Living Index.	Based on per cent. age basis	Mixed (more than one method)	
General Engineering	65	9	17	9	9	12	9
Electrical Engineering	42	7	11	10	5	6	3
Coach Building ..	20	8	..	4	5	2	1
Kerosene tinning etc	3	..	..	3	..	..	..
Metal Stamping ..	8	4	1	2	2	1	..
Miscellaneous ..	14	3	..	4	..	4	1
Total ..	152	31	29	32	21	25	14
Province or State							
Madras	16	4	7	3	1	1	..
Bombay	68	14	11	27	5	5	6
Bengal	43	11	8	..	12	10	2
U.P.	5	..	..	2	..	1	2
Punjab	10	1	..	..	2	3	4
Bihar	6	1	1	..	..	4	..
Baroda	3	..	1	..	..	..	2
Mysore	1	..	1	..	..	..	..
Total ..	152	31	29	32	20	26	16

Bonus and Other Allowances.—No war bonus is paid in the Railway Workshops and the Ordnance concerns. Out of the 153 concerns in other branches of engineering, 91 concerns, *i.e.*, about 60 per cent. pay what may be called the "prosperity" bonus. These 91 factories are distributed as follows : General Engineering, 34; Electrical Engineering, 27; Coach Building and Motor Repairing, 17 ; Kerosene Tinning and Packing, 3 ; Metal Stamping, 3 ; and Miscellaneous, 7. The amount of bonus varies from half a month's to four months' wages a year. Besides bonus, a number of other allowances are granted. These allowances are more common in Railway Workshops, General Engineering and Ordnance and in centres like Jamshedpur, Bombay and Calcutta.

Overtime.—Because of war-time pressure of work, overtime has been prevalent in a majority of engineering factories. Almost all the Railway workshops and Ordnance concerns work overtime, usually for two hours. Overtime is also common in other branches of engineering. For example, 51 out of the 65 General Engineering factories, 41 out of 43 electrical engineering factories, 18 out of 20 coach building and motor repairing factories, 6 out of 8 metal stamping factories and all the Kerosene tinning and packing factories work overtime. In some of the concerns (especially ordnance, railway workshops and miscellaneous), overtime is compulsory. However, the extra payment for overtime induces a worker to work it without any compulsion.

Deductions and Fines.—The usual deductions made are subject to the Payment of Wages Act (Section 7). In Railways, the amount of fines goes to the Staff Benefit Fund, maintained for the Railway as a whole. In the G.I.P. Railway alone, the amount outstanding in this Fund at the end of the year 1943-44 was Rs. 3,67,145. In other branches of engineering, out of 175 concerns investigated as many as 64 concerns had fine funds. The funds were distributed as follows : General Engineering, 18 ; Electrical Engineering, 17 ; Coach Building and Motor Repairing,6 ; Kerosene tinning and packing, 1; metal stamping, nil; Ordnance, 20; and Miscellaneous, 2. Fines seem to be common in ordnance, general engineering and electrical engineering. The amounts outstanding in 12 ordnance concerns and 14 general engineering factories were Rs. 23,043 and Rs. 6,591 respectively. In kerosene tinning and packing, only Burmah Shell had a fine fund and the amount outstanding in it was about Rs. 2,000. In most cases, the amount is at the disposal of the management of the concern.

Wage Period.—In as many as 175 factories, payments are monthly. Fortnightly payments are found in about 15 factories located in U.P., Bengal and Bombay, while weekly payments are prevalent in 17 factories, mainly in Bengal and Bihar. In 12 factories, different wage periods are in existence for different sets of workers. The distribution of wage periods is as follows.

TABLE 262.

Wage Periods.

Industry.	Monthly.	Fortnightly.	Weekly.	Miscellaneous (various periods).	Total.
General Engineering ..	40	8	8	9	65
Electrical Engineering ..	31	2	6	3	42*
Railway Workshops ..	45	..	..	..	45
Coach Building etc. ..	15	2	3	..	20
Kerosene Tinning etc. ..	3	..	..	..	3
Metal Stamping	8	..	..	..	8
Ordnance	21	1	..	..	22
Miscellaneous	12	2	..	..	14
Total	175	15	17	12	219*

* Information of one concern (a power station) is not available.

The waiting period varies between 7 and 10 days and is generally dependent on the size of the factory (*vide* Section 5 of the Payment of Wages Act).

Holidays.—Following the Factories Act, a weekly holiday, usually Sunday, is granted by most of the factories. Except this, hardly any uniformity exists as regards closed holidays in the units investigated. The number of additional holidays (for festivals, etc.) varies between *nil* and 25 and these are with or without pay.

III.—Working Conditions.

Shifts and Hours of Work.—The number of shifts vary considerably in a number of concerns investigated. In a general engineering factory in U.P., there were 41 shifts, which included general day and night shifts for various categories of workers. Similarly, in another U.P. factory (a power station), the workers had been divided into seven main groups, with as many as 57 shifts. One of the railway workshops had 54 relays for 19 groups of its employees. Normally, however, the number of shifts in a concern was less than four; the actual hours worked in each shift were between 7 and 10, with a rest interval varying between ½ and 2 hours. Night shifts were fairly common, because of the war-time pressure of work. Overtime, usually 2 to 4 hours, extended the length of the shifts worked, and in a few cases (railway workshops), the spreadover was found to be of 13 hours in a day, with only an hour's interval. Overlapping shifts were usually worked by different sets of workers.

Conditions of Work in Factories.—Too much reliance is placed on natural ventilation and lighting. Congestion has become inevitable on account of sudden expansion in employment. Rural concerns, like ordnance depots, have, however, not felt the congestion. Flooring is *kutcha* in a majority of small factories. No special protection against heat has been provided.

Shelters.—Rest-shelters, ranging from ordinary tin or wooden sheds to well-furnished rooms, have been provided by 47 factories, as follows :—

TABLE 263.

Shelters for Rest

Industry*	Number of factories providing rest-shelters in—									
	Madras.	Bombay.	Bengal.	U.P.	C.P.	Punjab.	Bihar	Cochin.	Bhavnagar.	Total.
General Engineering ..	4	3	5	2	..	2	1	..	..	17
Electrical Engineering ..	1	3	1	1	..	1	1	..	..	8
Railway Workshops ..	1	4	2	..	..	..	..	..	..	7
Coach Building ..	3	2	..	..	..	..	..	..	..	5
Kerosene etc.	..	1	..	..	..	..	..	..	..	1
Ordnance	..	2	1	1	1	..	..	1	1	7
Miscellaneous	..	2	..	..	..	..	..	..	..	2
Total ..	9	17	9	4	1	3	2	1	1	47

* There are no shelters in the Metal Stamping industry.

IV.—Welfare Activities.

Sanitary Arrangements.—The conditions of latrines and urinals were found to be rather unsatisfactory in some Provinces, especially in Bengal. In the Bengal coach building industry, for example, the number of persons using one latrine varied between 9 and 161. On an average, a latrine or urinal is built for the use of 50 persons. The general position, however, appeared to be better, and the investigation showed a satisfactory average as can be seen from the figures of some of the industries.

TABLE 264.

Latrines and Urinals.

Industry.	No. of concerns.	No. of workers.	No. of latrines and urinals	No. of workers using one latrine or urinal.
General Engineering	33	29,449	672	44
Coach Building etc.	13	4,434	151	29
Kerosene Tinning etc.	3	4,196	104	40
Miscellaneous	4	4,138	135	31
Total ..	59	42,217	1,062	40

Water supply is adequate and is mainly through water-taps; in Bengal, tube-wells are common. Workers, however, rarely take bath in the factory premises. Cool water is supplied in very few factories and where it is supplied it is mainly by means of earthern jars.

Medical Aid.—As many as 88 factories maintain either dispensaries or hospitals. Some of the factories have more than one dispensary. Most of the important railway centres have got well-equipped railway dispensaries or hospitals. The details about other branches of engineering are given below :—

TABLE 265.

Medical Arrangements.

Industry.	Number of factories having				Total No. of concerns.
	Hospitals.	Dispensaries	More first aid boxes.	Other arrangements.*	
General Engineering ..	7	17	29	12	65
Electrical Engineering ..	..	21	14	8	43
Coach Building	..	1	19	..	20
Kerosene Tinning ..	..	3	..	..	3
Metal Stamping	..	2	6	..	8
Ordnance	4	13	5	..	22
Miscellaneous	..	10	4	..	14
Total ..	11	67	77	20	175

* Other arrangements include (i) engaging a private practitioner, (ii) utilising an adjacent or public dispensary, (iii) contributing to a hospital or dispensary.

Medical facilities ranged from medical posts staffed by compounders to well-equipped hospitals staffed by qualified doctors. The medical arrangements in the ordnance concerns and in Jamshedpur appeared to be the best. Very few occupational diseases were reported. Periodical medical examination seemed to be practically absent.

Canteens.—As many as 93 concerns provided canteens, which ranged from ordinary tea-stalls to restaurants serving meals and refreshments. The distribution and management of canteens in the 93 concerns were as follows :—

TABLE 266.
Canteens in Engineering.

Industry.	No. of concerns investigated.	Number of factories having canteens, run by			
		Company.	Private contractors.	Workers' Co-operative Societies.	Total.
General Engineering ..	65	5	16	3	24
Electrical Engineering ..	43	5	7	2	41
Railway Workshops ..	45	2	13	2	17
Coach Building etc. ..	20	1	2	..	3
Kerosene etc.	3	1	2	..	3
Metal Stamping	8	1	1	..	2
Ordnance	22	..	5	16	21
Miscellaneous	14	..	8	1	9
Total ..	220	15	54	24	93

Canteens were common in Bombay, Calcutta and Jamshedpur. In Bombay, however, they served mainly tea and light refreshments, while in the other two centres and in most of the ordnance concerns, they served cheap meals. In the ordnance concerns, canteens were run by the Workers' Welfare Committees.

Creches and Education.—Only 5 out of the 220 factories investigated maintained creches as follows : (i) General Engineering, 2 factories (both in Bihar) ; (ii) Electrical Engineering, 1 factory (in Bihar) ; and (iii) ordnance depots, 2 (both in Bombay Province). No facilities for education are provided in any of the concerns investigated in Coach Building and Motor Repairing, Kerosene tinning and packing, and Metal stamping mainly because most of these factories have been located in urban localities. The Railways have their own schools in many centres and in addition they also subscribe to many public and private schools. The position in other branches of engineering was as follows :—

TABLE 267.
Educational Facilities.

Industry.	No. of factories having educational facilities for				Main Centres.
	Workers' Children.	Adult workers.	Both	Total.	
General Engineering ..	3	..	5	8	Calcutta, Jamshedpur, Cawnpore, Bhadravati.
Electrical Engineering ..	3	10	1	14	Bombay, Madras Calcutta Cawnpore.
Ordnance	4	5	3	12	Kirkee, Dehu, Ishapore,
Miscellaneous	2	..	..	2	Bombay.
Total ..	12	15	9	36	

Grainshops.—Because of war-time necessities, as many as 156 out of the 220 concerns investigated had maintained grain shops for their workers. The railway workers got cheap grains and other provisions, at rates far lower than those prevalent in the market, from the shops maintained by the railway authorities. In other branches of engineering also, a majority of factories maintained ration grain shops, which sold articles at controlled rates, and in some cases even cheaper. These shops were distributed as follows : General engineering 38; electrical engineering, 34; coach building and motor repairing, 8 ; kerosene tinning and packing, 3 ; metal stamping, 4 ; ordnance, 15 ; and miscellaneous, 9. The shops were more common in Bombay, Bengal and Bihar than in other Provinces.

V.—Housing Accommodation.

As many as 67 concerns have provided housing for their workers. This provision is common in ordnance industry, railway workshops and power stations. No housing accommodation has been provided by any of the factories in coach building and motor repairing, kerosene tinning and packing, and metal stamping, mainly because of their urban location. The distribution of housing provided by some of the factories was as follows :—

TABLE 268.

Housing Accommodation.

Industry.	Number of factories providing housing accommodation in									
	Madras.	Bombay.	Bengal.	U.P.	Punjab.	Bihar.	C.P.	Ajmer.	Mysore.	Total.
General Engineering ..	..	1	4	..	2	3	..	..	1	11
Electrical Engineering ..	1	5	7	..	1	1	..	..	..	15
Railway Workshops ..	1	20	2	..	1	..	..	1	..	25
Ordnance	..	8	2	1	..	..	2	..	..	13
Miscellaneous ..	..	3	..	..	..	..	..	..	..	3
Total ..	2	37	15	1	4	4	2	1	1	67

Though we find some factories in big cities, such as Bombay, Madras, Calcutta, Lahore, Cawnpore, Poona, Sholapur and Ahmedabad, providing housing for their workers, it is mostly in mofussil industrial centres like Hirapur, Kulti, Bhira, Bhivapuri, Khopoli, Hubli, Kurduwadi, Burdwan, Naihati, Darjeeling and Tindharia, that a necessity for housing the workers arises. Well-organised workers' colonies have been set up in Bhadravati, Jamshedpur, Kirkee, Dehu, Jubbulpore and Ishapore. The details of these colonies are given in their respective places. No adequate material has been available about the housing provided by private landlords or public bodies, but from the information available it appears that the conditions are far from satisfactory.

VI.—Trade Unions and Strikes.

Trade Unions.—The Annual " Notes " on the working of the Trade Union Act (1926) give the number of registered trade unions and their membership. The following table is compiled from these " Notes ".

TABLE 269.

Registered Trade Unions and Their Membership.

Year.	Railways (including workshops and other transport excluding tramways).		Tramways.		Engineering.	
	Unions.	Membership.	Unions.	Membership.	Unions.	Membership.
1929-30 ..	28	1,59,444	3	4,074	1	445
1934-35 ..	46	1,56,103	3	3,519	8	1,018
1939-40 ..	86	1,79,381	7	6,080	20	6,768
1940-41 ..	99	1,71,572	5	5,669	28	9,547
1941-42 ..	92	2,19,086	5	5,458	26	9,292
1942-43 ..	80	2,54,510	6	7,400	40	17,754

Unions in the railways and tramways have generally far more members in the traffic section than in the workshops.

In the main body of this Report, details about 53 unions are given; 8 of these unions are " general " unions, *i.e.*, their membership is open to all engineering unions and is not restricted to a particular branch of engineering or to a particular concern in that branch. The 8 general unions are located as follows : Madras, 1; Bombay, 5; Bengal, 1 and Bihar, 1. The distribution of other 45 unions is as follows :—

TABLE 270.

Trade Unions in Investigated Factories.

Industry.	Total No. of concerns.	No. of unions.	Location of the unions.
General Engineering	65	18	Madras, 4 ; Bombay, 4 ; Bengal, 6 ; Bihar, 3 and Mysore, 1.
Electrical Engineering	43	13	Madras, 2; Bombay, 6; Bengal, 2; Punjab, 2 and U.P., 1.
Coach Building ..	20	6	Madras, 1 ; Bombay, 2 and Bengal, 3.
Kerosene	3	1	Bombay, 1.
Metal Stamping ..	8	1	Bombay, 1.
Ordnance	22	2	Bengal, 1 and C.P. 1.
Miscellaneous ..	14	4	Bombay, 4.
Total ..	175	45	Madras, 7 ; Bombay, 18 ; Bengal, 12 ; U.P., 1; Punjab 2; Bihar, 3, C. P., 1 ; and Mysore, 1

Engineering workers are thus fairly organised, mainly because a large number of them are skilled, educated, well-paid and advanced. The industry also is well organised and is concentrated in a few industrial centres. A large number of trade unions is unregistered, as can be proved from the list of unions in the Bombay Province. The rate of subscription varies from one

anna to four annas per month. Many unions, though registered under the Act, have not been recognised by the employers.

Works Committees.—Works Committees are very common in railways. In other branches of engineering, out of 175 concerns investigated, only 29 had Works Committees, known variously as Workers' Councils, Workers' Welfare Committees or Workers' Committees. In ordnance 16 out of the 22 concerns investigated had Workers' Welfare Committees, with a well-defined constitution. The remaining factories having Works Committees were as follows : general engineering, 5 (2 in Bihar and 1 each in Bombay, U.P., and Baroda) ; electrical engineering 2, (1 each in Bengal and Bihar) ; coach building and motor repairing, 3 (Bombay, 1 and Bengal, 2) ; Kerosene tinning and packing, 1 (Bombay) ; and Miscellaneous, 2 (in Bombay). Both workers and managements are represented on these Committees, which discuss the day-to-day grievances of workers.

Strikes.—A complete record of all strikes is not available. However, some details about strikes are given earlier. Many of the factories experienced more than one strike, specially during war time. Many other investigated factories have not supplied correct and adequate information about strikes. The 65 concerns; which have supplied adequate information, are distributed as follows : general engineering, 22 (Madras, 4; Bombay, 4; Bengal, 10; U.P. 1 ; Bihar, 2 ; and Mysore, 1) ; electrical engineering, 14 (Bombay, 7 ; Bengal, 5; Bihar, 1; and Punjab, 1); coach building and motor repairing, 7 (Madras, 1; Bombay, 2; and Bengal, 4); kerosene tinning and packing, 3 (Bombay); metal stamping, 3 (Bombay); ordnance, 6 (Bombay, 2; and 1 each in Bengal, U.P., C.P. and Bhavnagar); and Miscellaneous, 10 (Bombay). The majority of strikes took place in war time mainly for wage increases, either in the form of more wages or of more allowances.

VII.—General.

Accidents.—Complete details about accidents and compensation are not available. However, details are available about accidents in 144 concerns in the year 1943 and in 1944 in a few cases.) These accidents, with the amount of compensation paid, have been summarised below according to industries and areas :

TABLE 271.

Accidents in 1943.

Industry.	Total No. of concerns investigated	No. of concerns having accidents.	Total No. of accidents.	No. of accidents for which compensation was paid.	Amount of compensation paid. Rs.
General Engineering	65	37	12,016	2,321	1,47,106
Electrical Engineering	43	23	850	347	9,880
Railway Workshops	45	37	3,744	1,546	50,272
Coach Building	20	11	806	257	6,506
Kerosene	3	3	390	361	11,791
Metal Stamping	8	5	339	230	3,368
Ordnance	22	18	7,365	2,011	60,751
Miscellaneous	14	10	153	116	6,400
Total ..	220	144	25,663	7,188	2,96,074

Province or State.	Total No. of concerns investigated	No. of concerns having accidents	Total No. of accidents	No. of accidents for which compensation was paid	Amount of compensation paid.
Madras	19	10	702	96	8,381
Bombay	117	83	8,569	4,206	98,669
Bengal	51	29	4,158	1,637	91,104
U. P.	6	3	1,413	73	3,141
Punjab	12	9	1,516	573	10,268
Bihar	6	5	7,520	369	64,614
C. P.	2	2	1,567	19	11,657
Mysore	1	1	180	189	5,219
Baroda	4	..	..	..	
Bhavnagar	1	1	37	..	..
Cochin	1	1	1	..	..
Total ..	220	144	25,663	7,188	2,96,074

A number of accidents go uncompensated. These accidents are generally of less than seven days' duration and in many cases injury leave and pay for the period of absence is granted. The grant of injury pay is very common in the ordnance industry.

Indebtedness.—A very large number of industrial worker is indebted, though exact data are not available. The most common method adopted by concerns to help the workers is to grant advances and short-term loans to workers against wages earned. These are mostly interest-free loans. Loans are also given by a few concerns from Welfare Funds and from Provident Fund accumulations. About 35 factories had co-operative societies, distributed as follows : general engineering, 11; electrical engineering, 13; coach building and motor repairing, 3; kerosene tinning and packing, 1; metal stamping, 1; and ordnance, 6. In addition, the co-operative societies managed by the various railways cater for workers employed in railway workshops. The usual interest charged by the societies is either 6-1/4 per cent. or 9-3/8 per cent. per annum. However, the Societies have not proved very successful as can be seen from the fact that outside moneylenders are still largely in the field.

Provident Fund.—Most of the railways have Provident Funds and an employee in a workshop can join it under certain conditions. The workers in ordnance factories (but not depots) are also governed by the Indian Factory

Provident Fund Rules. Out of the 153 concerns in other branches of Engineering, only 55 concerns have Provident Funds distributed as follows :—

TABLE 272.

Provident Funds.

Industry.	Number of factories having Provident Fund system in								
	Madras	Bombay.	Bengal.	UP.	Bihar	Punjab.	Baroda.	Mysore.	Total
General Engineering	1	4	2	1	3	..	2	1	14
Electrical Engineering	2	17	6	1	1	2	..	..	29
Coach Building etc.	2	1	2	..	..	..	..	..	5
Kerosene Tinning etc.	..	1	..	..	..	..	..	..	1
Metal Stamping	..	2	..	..	..	..	..	..	2
Miscellaneous	..	4	..		..	..	..	..	4
Total ..	5	29	10	2	4	2	2	1	55

The rules are mostly similar barring some slight variation in the conditions for eligibility for membership, rates of contributions and conditions of claims on employer's contributions.

Gratuities.—The railways and the ordnance industry have their own rules regarding gratuities and pensions. In other branches of engineering, 30 factories (only in 3 industries) were found to have gratuity systems. These factories were : general engineering, 13; electrical engineering, 15; and coach building and motor repairing, 2. Pensions are given only in 3 factories: general engineering, 2 and kerosene tinning and packing, 1. The rules regarding gratuities and pensions vary considerably from factory to factory.

B. P. ADARKAR,

Member, Labour Investigation Committee.

SIMLA,

10th December, 1945.

APPENDIX I.

Views of Employers' Associations.

The Indian Engineering Association and the Engineering Association of India, which between them represent a considerably large section of the engineering industry having a membership of 166 engineering concerns that employ nearly 300,000 workers, submitted two valuable memoranda setting out their views regarding conditions of labour in the engineering industry. These memoranda represent a cross-section study, of the labour problems from the employers' point of view. Considerable factual and statistical data given in them are of interest, and are, therefore, summarised in this Appendix, together with certain views expressed by the Associations.

Employment.

The Indian Engineering Association has at present 95 members employing a total of about 150,000 workers. The Engineering Association of India has 71 members who employ on an average between 125,000 and 150,000 workers.

Length of Service.—Information regarding length of service was available only from 8 firms which were members of the Indian Engineering Association. This is given in the following table :

TABLE 1.

Length of Service.

Service.	No. of workers.	Percentage of Total.
Between 0 and 1 year	3,898	20·9
,, 1 and 5 years	9,168	49·1
,, 5 and 10 years	2,674	14·3
Over 10 years	2,942	15·7
Total ..	18,682	100

Classification of Workers.—The workers are classified not on the basis of the posts held by them but on the basis of the period of service and frequently from the point of view of their participation in various benefits such as provident fund. For this reason there has not been the same need for a recognition of a class of *badli* or temporary workers as in other industries and in normal times the majority of firms do not have their workers so classified.

Apprenticeship.—From the earliest days there was a class of skilled *mistry*, in which the skill was passed on from father to son. The initial development of the skilled engineering workers arose entirely as a result of the practical experience of men who entered the factories when they were comparatively young and gained their knowledge of the processes of industry over many years of practical experience. To a very large extent, this system

of informal training still continues. The limitations of this system are that the time taken for training is long, the experience of the worker is limited to the machine to which he has been trained and, more than all, the worker obtains no scientific or theoretical technical background. The older engineering firms, therefore, for many years, and an increasing number of concerns recently, have developed apprentice training courses with the object of producing skilled workers suitable for senior executive posts.

Graded or Timescale Promotions.—There are generally graded posts for the supervisory staff. Increments in pay are given to workers in most of the engineering firms on the recommendation of the foreman. The amount of increment usually depends on their length of service and ability.

Labour Turnover and Absenteeism.—Figures given by the Indian Engineering Association indicate that labour turnover in 1944-45 was about 2 to 3 per cent. per month as against a pre-war figure of 1 per cent. Skilled labour is more permanently settled than unskilled and is more intelligent and appreciates the advantages which follow on long service in the way of provident fund, pensions, increments, etc. In their case, the problem of labour turnover does not arise to any large extent. During war time, however, considerable numbers of skilled workers left civil factories for employment in Ordnance factories. Absenteeism figures were not available.

Recruitment.—Since in the engineering industry skilled workers are employed to a large extent the question of recruiting from long distances does not arise. The recruitment of labour is invariably done directly from amongst applicants for jobs.

Wages and Earnings.

Maximum and minimum hourly rates of wages for select occupations in the industry in three important centres, Bombay, Calcutta and Howrah and average daily rates for the industry as a whole are given in the next two tables.

TABLE 2.

Basic Hourly Wages for Select Occupations in the Engineering Industry in Calcutta, Howrah and Bombay, 1938 and 1944.

(From figures supplied by the Indian Engineering Association).

Occupation	1938						1944					
	Calcutta.		Howrah		Bombay.		Calcutta		Howrah		Bombay	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Blacksmith	0 2 3	0 3 3	0 2 6	0 2 11	0 2 7	0 5 8	0 2 8	0 4 8	0 2 8	0 3 8	0 3 3	0 5 8
Boilermaker	0 1 11	0 3 4	0 1 3	0 2 0	0 2 10	0 5 7	.. ..	.. ..	0 2 7	0 3 3	0 3 4	0 5 4
Carpenter	0 2 4	0 3 11	0 2 2	0 3 1	0 2 6	0 4 4	0 2 3	0 3 6	0 1 11	0 3 8	0 2 6	0 4 4
Cooly	0 1 2	0 1 8	0 1 1	0 1 4	0 1 8	0 2 4	0 1 8	0 2 1	0 1 7	0 1 11	0 1 8	0 2 3
Coppersmith	0 1 7	0 3 5	0 1 4	0 3 4	0 2 4	0 4 9	.. ..	.. ..	0 1 9	0 3 9	0 3 ..	0 4 9
Driller	0 1 10	0 3 2	0 1 6	0 2 4	0 2 ..	0 3 ..	0 2 3	0 3 2	0 1 11	0 3 6	0 2 2	0 3 3
Electrician	0 2 ..	0 3 11	0 2 0	0 3 7	0 2 11	0 5 5	0 2 6	0 3 10	0 1 10	0 4 3	0 3 11	0 5 5
Fitter	0 1 11	0 4 10	0 1 4	0 4 3	0 2 7	0 5 3	0 2 8	0 4 9	0 2 1	0 4 4	0 3 4	0 5 6
Hammerman	0 1 8	0 1 11	0 1 5	0 1 10	0 2 1	0 3 8	0 1 10	0 2 4	0 1 9	0 2 1	0 2 3	0 3 8
Khalasi	0 1 11	0 2 4	0 1 6	0 2 2	0 1 7	0 1 7	0 1 6	0 2 4	0 1 7	0 2 1	0 1 10	0 2 8
Machinist	0 2 9	0 4 5	0 1 10	0 3 8	0 2 6	0 5 ..	0 1 5	0 2 4	0 2 1	0 3 1	0 2 5	0 4 6
Moulder	0 1 6	0 3 4	0 1 4	0 3 8	0 2 8	0 5 6	0 2 5	0 3 9	0 2 1	0 3 9	0 3 0	0 5 6
Oilman	0 1 5	0 1 9	0 1 3	0 1 7	0 2 3	0 3 8	0 2 2	0 3 6	0 2 1	0 3 1	0 2 2	0 3 6
Patternmaker	0 2 5	0 3 9	0 2 2	0 3 8	0 2 11	0 5 8	0 2 9	0 3 5	0 2 1	0 3 5	0 2 2	0 3 6
Painter	0 1 4	0 2 3	0 1 2	0 1 9	0 1 11	0 2 1	0 2 6	0 3 1	0 1 11	0 2 8	0 2 1	0 3 0
Plater	0 1 10	0 3 6	0 2 6	0 3 6	0 2 2	0 5 3	0 2 2	0 2 10	0 2 1	0 3 5	0 2 1	0 4 1
Rivetter	0 2 6	0 3 6	0 2 8	0 3 6	0 2 9	0 5 8	.. ..	.. ..	0 2 1	0 3 3	0 2 1	0 5 10
Tinsmith	0 1 7	0 3 2	0 2 0	0 2 6	0 2 4	0 3 11	0 2 1	0 3 2	0 2 1	0 3 2	0 2 1	0 3 11
Turner	0 2 2	0 4 6	0 1 11	0 3 7	0 2 7	0 4 6	0 2 3	0 3 6	0 1 3	0 3 4	0 3 3	0 4 8
Welder (Electric)	0 3 1	0 5 0	0 2 9	0 3 5	0 3 4	0 6 7	0 2 3	0 4 2	0 2 11	0 4 3	0 3 4	0 6 8
Welder (Gas)	0 2 1	0 4 0	0 2 7	0 3 2	0 3 1	0 5 5	0 2 3	0 4 3	0 2 ..	0 4 3	0 3 4	0 6 9

TABLE 3.

Average Wage Rates for Select Occupations (1944).

(From figures supplied by the Engineering Association of India).

Occupation.	Rates per day.	
	Skilled workers.	Unskilled workers.
Blacksmiths	1 11 3	0 12 9
Boilermaker	1 14 0	..
Carpenter—Manual	1 10 0	0 14 0
Carpenter—Mechanical	1 4 0	..
Cooly—General	1 0 6	0 12 0
Cooly—Packing	0 11 0	..
Coppersmith	1 15 0	..
Driller	1 9 9	0 11 3
Fitter—Machine shop	1 10 9	0 12 3
Fitter Electrical	1 9 3	..
Fitter Tool Shop	2 0 3	0 11 9
Fitter Structural	2 2 0	0 15 0
Hammerman—Small Forging	0 15 6	0 11 0
Hammerman—Heavy Forging	1 0 3	0 10 6
Khalasi	1 8 0	..
Machinemen	2 0 0	0 13 0
Moulder	1 12 6	1 0 0
Pattern Maker	2 1 9	0 10 6
Painter	1 8 0	..
Plater	1 0 0	0 12 0
Rivetter	1 10 0	..
Tin Smith	1 15 0	..
Turner	2 0 0	0 13 0
Welder (Electric)	2 4 9	0 15 0
Welder (Gas)	2 0 0	0 10 0
Wiremen	1 11 9	..

Dearness Allowance.—Special payments to meet the increased cost of living during war were made by engineering concerns comparatively early in the war. In the Bombay area, engineering employers in general followed the action taken by the textile industry, in which the rate of allowance up to January 1941 was 2 as. per working day. Thereafter some engineering firms followed the revised rate of the textile industry of 33¾ pies per worker for a cost of living index figure of 124 increasing by 1¾ pies for each point in the index above this. Other engineering firms adopted an alternative percentage scale, rising by 1 per cent. on basic wages for every 2 points increase in the Bombay cost of living index. In the Madras area, in some cases engineering firms have granted a cash allowance combined with the supply of food at concession rates, while in others dearness allowance is paid entirely in cash and calculated at 2 annas per point increase in the cost of living index in excess of 100. In the Calcutta area, in 1940 a temporary allowance of about 7½ per cent. of basic wages was granted which in January 1942 was increased to Rs. 5 per month to workers drawing Rs. 20 per month and in August 1942 to Rs. 7. From August 1942 a general policy of "freezing" the cost of living by supplying rations to the labour at fixed concession rates was adopted and continued ever since. From December 1942 the dearness allowance was Rs. 9 per month for workers drawing Rs. 20, apart from the food concessions.

Working Conditions.

In peace-time conditions it is customary over the greater part of the engineering industry to work one shift a day with overtime up to the limits permitted by the Factories Act when need arises. In war conditions, however, it has become necessary to work two shifts, a day shift and a night shift, in several factories. Three shifts are worked only in continuous process production such as rolling mills, bolt and nut production, etc. Where only single shifts are worked the hours of work are generally 8½ per day with a spreadover of 9 or 9½ hours. Where three shifts are worked the usual arrangement is from 6 a.m. to 2 p.m., from 2 p.m. to 10 p.m. and from 10 p.m. to 6 a.m. with half an hour's break in the middle of each shift. The usual number of days worked a week is 5½ or 6. Since the beginning of the war, overtime working has also been general in the engineering industry. In 1942, the average overtime payment in the Calcutta firms was about 20 per cent. of the basic earnings.

Welfare Activities.

As the workers in the engineering industry do not live in compact areas contiguous to the factory but are dispersed over wide areas, it is difficult to introduce organised welfare activities outside working hours. Welfare activities in engineering factories have, therefore, a more limited scope than is possible in some other industries. It is customary in the majority of firms to provide medical facilities, free treatment and often free medicines to workers who are injured in the course of their work, and this is frequently extended to all cases of sickness. A large majority of firms also provide canteens where the workers can obtain light refreshments at reasonable rates. The grainshops that are maintained in several engineering concerns has been necessitated by war-time scarcity of food-stuffs and the introduction of rationing in several industrial centres. It is unlikely that these will continue when normal times return. In several factories, the radio is used as a source of entertainment during the rest interval at midday. Before the war, many firms encouraged sports and athletic activities, but pressure of work has made it necessary in many cases to abandon these during war time. There is no doubt they will be resumed in the post-war years.

Housing.

In the main urban areas, the employers do not provide any housing facilities to their workers ; nor should they be expected to do so as action by the employers cannot touch even the fringe of the problem of housing. In up-country factories, in which the industry has been started in newly developed industrial areas, the employers have either provided housing accommodation or have granted facilities in the way of land at cheap rentals, housing materials, etc.

General.

In an investigation made by the Indian Engineering Association in the Calcutta industrial area in August 1942, it was ascertained that the position as regards pension and gratuity schemes and provident funds was as follows :—

TABLE 4.

Position as regards Provident Funds, Pensions, etc.

	Number	Per cent.
Workers affected by pension or gratuity schemes	19,861	40·8%
Workers not affected by pension or gratuity schemes	28,615	59·2%
	48,296	100%
Workers affected by provident fund schemes	15,126	31·3%
Workers not affected by provident fund schemes	33,179	68·7%
	48,305	100%
Workers covered by any regular system of pensions, gratuity or provident fund	29,832	62·0%
Workers not covered by any regular system of pensions, gratuity or provident fund	18,464	83·0%
	48,296	100%

APPENDIX II.

Provincial distribution of Employment in the Engineering Industry, 1939 and 1943.

(Number of Workers).

Industry.	Year	Madras	Bombay	Sind	Bengal	U. P.	Punjab	Bihar	Orissa	C. P. & Berar	Assam	N.W. F. P.	Baluchistan	Ajmer-Merwara	Delhi	Bangalore and Coorg.	Total
General Engineering ..	1939	4,103	9,151	1,399	44,306	3,439	3,729	34,830	364	420	824	..	48	..	269	223	99,096
	1943	8,753	21,953	5,728	83,248	10,699	13,313	43,424	1,035	1,140	1,585	1,049	231	..	2,569	952	1,95,679
Electrical Engineering ..	1939	718	2,335	161	6,693	1,372	1,596	2,252	19	469	52	242	129	..	367	..	16,705
	1943	1,291	3,999	654	9,654	1,508*	2,408	3,860	49	731*	154	295	135	..	527	..	25,175
Railway Workshops ..	1939	12,313	18,015	1,736	26,772	13,924	11,452	12,676	328	848	534	135	..	6,360	..	..	1,04,058
	1943	16,622	27,389	2,014	33,836	13,211	19,965	16,257	380	904	1,398	..	819	8,791	..	..	1,41,352
Coach Building and Motor Repairing	1939	1,582	2,414	28	1,553	262	242	96	..	104	299	..	..	..	233	24	6,824
	1943	4,397	8,620	272	3,374	658	1,652	199	..	110	407	266	..	..	487	188	20,626
Kerosene Tinning and Packing	1939	659	1,446	79	2,778	..	..	..	..	..	51	..	..	..	..	..	5,724
	1943	896	3,799	1,195	3,906	..	..	..	..	..	..	..	..	..	..	..	9,706
Metal Stamping	1939	..	2,991	32	1,623	45	..	..	..	..	..	..	..	..	..	..	4,691
	1943	..	5,545	..	3,331	22	..	..	..	..	..	..	..	..	..	..	8,898
Ordnance Factories ..	1939	851	5,364	535	9,275	4,691	6,556	..	..	2,093	..	270	1,075	..	..	..	30,709
	1943	5,375	31,121	..	33,740	28,389	17,565	..	..	10,968	..	558	2,239	..	1,13	..	1,31,076
Miscellaneous	1939	240	3,351	206	1,110	224	992	..	..	..	132	..	136	..	45	33	6,769
	1943	1,474	7,542	143	4,655	1,155	2,546	716	..	*	220	21	63	.			18,840
Total ..	1939	2,,405	45, 87	3,187	93,117	23, 48	24,557	45 854	711	3,934	1,892	512	1,388	6,360			,74,576
	1943	38,718	9,378	10,002	175,69	55,663	57,699	64,256	1,464	13,853	3,764	2,189	3,487	8,791	4,713		,51,352

* Figure for Bihar only available.

APPENDIX III.

Provincial distribution of Engineering factories, **1939** *and* **1943.**

(Number of Workers).

Industry.	Year.	Madras	Bombay	Sind.	Bengal	U.P.	Punjab.	Behar	Orissa	C.P. and Berar	Assam	N.W.F.P.	Baluchistan	Ajmer Merwara	Delhi	Bangalore.	Total
General Engineering	1939	42	188	17	178	41	71	29	3	10	10	..	1	..	11	1	602
	1943	85	276	55	305	83	217	41	3	26	11	8	1	..	41	2	1,54
Electrical Engineering	1939	8	31	5	36	13	15	15	1	18	1	7	1	..	2	..	154
	1943	14	24	13	40	16	19	21	3	23	8	4	1	..	2	..	205
Railway Workshops	1939	23	36	5	28	23	8	25	2	6	3	..	..	4	..	..	163
	1943	23	39	6	27	23	19	23	2	8	4	..	5	5	..	..	184
Coach Building and Motor Repairing ..	1939	18	41	1	16	6	6	4	..	4	8	..	..	..	7	1	112
	1943	60	31	5	18	16	6	5	..	4	8	3	..	..	6	4	166
Kerosene Tinning and Packing ..	1939	7	8	5	12	..	..	..	..	..	1	..	..	..	..	..	33
	1943	10	11	7	15	..	..	..	..	..	..	..	..	..	..	..	43
Metal Stamping	1939	..	50	1	8	1	..	..	..	..	..	..	..	..	..	..	60
	1943	..	64	..	10	1	..	..	..	..	..	..	..	..	..	..	75
Ordnance Factories	1939	1	5	1	3	2	6	..	..	1	..	5	1	..	..	..	25
	1943	4	15	..	4	8	8	..	..	3	..	1	1	..	1	..	45
Miscellaneous	1939	3	94	6	10	9	21	..	..		2	..	3	..	1	1	150
	1943	19	139	4	20	19	46	3	..	1	1	1	2	..	..	1	256
Total ..	1939	102	453	41	291	95	128	73	6	39	25	12	6	4	21	3	1,299
	1943	215	617	90	439	166	315	93	8	65	32	17	10	5	50	7	2,129

APPENDIX IV.

Standard Labour Classification in a Coach Building factory (annas per hr.).

Class E.	Class D.	Class C.	Class B.	Class A.
As. 2½—1—3½	As. 3½—1—4	As. 3½—1—4½	As. 4—1—5	As. 5—1—6
Cleaners	Car Cleaners	Acid cleaners	Assemblers	Arc Welders.
,, Car	Case Openers	Angle Bender	Assembly Line	Battery Charge.
Coolies— Box Lumber ..	Dip Primers	,, Copper	Chasers	Blacksmiths.
Delivery	Greasers	Assistant Tool Makers.	Band Saws	Compressor Attendants.
General	Grinders	Borers	Bench Fitters	Ant
Maintenance	Hammer Men	Brush Painters	(Maintenance).	Clerks, Receivng
Material	Mechanics	Circular Saw	Brake	Crane.
Handling	Helpers, Metal Washers.	Men, Clerks-Car Order.	Testers, Brick Layers.	Driver Electricians.
Open Plot	Oven Loaders	"Car Tag"	Buffers	Electro Platers.
Paint	"Unloaders"	"Disbursement"	Carpenters	Engine Testers.
Receiving	Sand Blasters	"Transport"	Clerks Office	Gas Welders.
Timber	Stencillers	Commercial Body	"Salvage"	Heater Attendants.
Tire	Stock Pickers-Apprentices.	Bench Fitters	Compounders	Lathe Operators
Transport		Cross Cut Saw Men.	Cushion Assembaly.	Machine Repairmen.
Gardeners		Drillers	Cutters	Machinists.
Greasers: Assistant ..		Drivers-Sales	Door Hangers.	Mechanic-Electricians.
Lavatory Attendants ..		Storage	Fitters & Checkers.	Metal Finishers
Office Peons		Dry Sanders	Outside Body	Munitions Delivery.
Sweepers		Folders	Builders' Units	Men.
Tool Box Men		Fuse Assemblers	Frame Drillers	Sample Body Builders.
		"Buffers	"Rivetters	Solderers.
		Gillotine	Letter	Spray.
		Shear	Painters	Painters.
		Hand Brake	Light Focussers	Stripers.
		"Planers	Mechanics Second Class.	Tinsmiths.
		"Swagers		Tool Makers.
		Hydraulic Press	Moulders	Touch up. Men.

Class E.	Class D.	Class C.	Class B.	Class A.
As. 2½—½—3½	As. 3½—½—4	As. 3½—½—4½	As. 4—½—5	As. 5—½—6
		Moeticers Petrol Control Men Power Bumper Power Press Power Punch Rotary Shear Shell Vanishers Stock Checkers Stock Pickers Tennoners Thicknesser Thread Miller Timber Pickers Wet Sanders	Oil Sanders. Paint Mixers Parts Packers Casemakers Parts Location Clerks. Parts Pickers & Receivers. Plumbers. Polishers Ramp Men Sewing Machines Men. Spindle Shapers Spot Welders. Stopkeepers. Tarpaulin Tailors Test Drivers. Trimmers. Wheel Alingers. Assembly. Windshield Wiring Harness.	
As. 2½—½—3½	Rs. 3—½—4	As. 3—½—½—4½	As. 4½—½—5	As. 5—½—5

Group Leaders of Jobs listed Under the Above classifications.

As. 3½—½—4½	As. 3½—½—4½	As. 4½—½—5½	As. 5½—½—6½	As. 6½—½—7½

Inspectors.

Shell Division
As. 4—½—5

All Other Inspectors.
As. 5—½—6

Assistant Foremen and Specialists As. 7—½—8 as per hour.

APPENDIX V.

Development of Dearness Allowance and Bonus Systems in a Coach building and Motor Repairing Factory.

From January 1, 1940 to March 31, 1941—

Under Rs. 100	10 %.
Rs. 100 and over	5%
April 1941—	
Under Rs. 100	14%
Rs. 100 and over	7½%

May 1941—

Under Rs. 100	16%
Rs. 100 and over	7½%

June 1941—

Under Rs. 100	17%
Rs. 100 and over	7½%

July 1941—

Under Rs. 100	20%
Rs. 100 and over	7½%

August 1941—

Under Rs. 100	20%
Rs. 100 and over	8%

From September 1, 1941 to May 31, 1942—

Under Rs. 50	25%
Rs. 50 to Rs. 99-15-0	20%
Rs. 100 and over	8%

From June 1, 1942 to July 31, 1942—

Under Rs. 60	60%
Rs. 60 to Rs. 79-15-0	25%
Rs. 80 to Rs. 99-15-0	20%
Rs. 100 and over	15%

From August 1, 1942 to December 31, 1942—

Under Rs. 60	30%
Rs. 60 to Rs. 79-15-0	25%
Rs. 80 and over	20%

From January 1, 1943 to August 31, 1943—

Under Rs. 40	40%
Rs. 40 to Rs. 59-15-0	35%
Rs. 60 to Rs. 79-15-0	30%
Rs. 80 and over	25%

From September 1, 1943 to July 31, 1944—

Under Rs. 45	55%
Rs. 45 to Rs. 59-15-0	50%
Rs. 60 to Rs. 74-15-0	45%
Rs. 75 to Rs. 89-15-0	40%
Rs. 90 to Rs. 119-15-0	35%
Rs. 120 and over	30%

Effective August 1, 1944—

Under Rs. 45	60%
Rs. 45 to Rs. 59-15-0	55%
Rs. 60 to Rs. 74-15-0	50%
Rs. 75 to Rs. 89-15-0	45%
Rs. 90 to Rs. 119-15-0	40%
Rs. 120 and over	35%

This emergency allowance is temporary

Bonuses paid to workmen since the outbreak of the war are listed hereunder :

In 1942	1/12th of 1941 wages.
In 1943	1/6th of 1942 wages.
In 1944	1/6th of 1943 wages.

The bonuses are temporary.

APPENDIX VI.

Works Committee in a Bengal Coach Building Factory.

Object.—The " Works Committee " has been formed in order to promote and improve the relations between the Company and its workmen. From the Company's point of view, closer contact and better understanding with the workmen is desired, and from the workers' point of view, better representation of their interests.

2. *Functions.*—The Works Committee would be purely a consultative and advisory body. The subjects for its consideration will include the following :—

(a) Increase in productive efficiency.

(b) Time-keeping, overtime, punctuality, and regularity of attendance, holidays.

(c) Reduction in waste of materials and stores.

(d) Interpretation and enforcement of factory regulations, standing orders and circulars and the terms of any agreement between management and workers.

(e) Enquiry into the grievances reported by workers and discussion of such grievances as appear to be genuine with a view to their removal.

(f) Maintenance of discipline among workers.

(g) Apprentice training.

(h) Prevention of Accidents. First Aid.

(i) Sanitation and hygiene.

(j) Medical aid to workers.

(k) Sports and entertainments.

(l) Co-operative stores, cheap foodgrain shop.

(m) Factory A.R.P.

(n) Any other subject that may be referred to it by the Manager or by any of its members and duly approved by the President.

3. *Constitution.*—The works Committee will be composed of 11 members follows :—

Representatives of Management—4.

Representatives of the workers selected from the various departments—7.

Members of the Works Committee representing the workmen will hold office for 12 months from the date of their election, after which date the Committee can be re-constituted. The method of selection, in the case of the workers' representatives, will be ' secret ballot ' amongst the workmen themselves, each department electing one or more representatives according to the size and importance of the department. The workers' representatives may offer themselves for re-election at the end of their term.

The constitution of the present workmen's members is as follows :—

R/D	..	3 Representatives (divided into 2 men from Assembly Department, and 1 man from R/D proper).
T/P	..	1 Do.
C/B	..	1 Do.
Eng.	..	2
		7 Representatives.

Whoever gets the majority of the votes in each department will be declared elected.

To ensure inclusion of only the responsible workers in the Committee, an age and a service qualification may be prescribed. No one will be qualified to represent the workers on the Committee unless he has attained 25 years, and has a service qualification of at least one year.

A list of all workmen in each department who are on the payroll of the Company on the day before the election will be prepared and only those workmen on this list will be entitled to vote.

Each man must vote personally and not by proxy.

The President of the Works Committee will be the Manager of the Company, or his nominee, and the workmen elected to the Committee will nominate amongst themselves a representative who will be their spokesman and who can see or write to the Manager on behalf of the workmen.

The Committee should meet approximately once a month.

A Special Meeting may be called by the President at the request of not less than 3 members of the Committee.

The Committee will meet on a working day.

The President will prepare the Agenda for the meeting and will circulate it to the members at least 24 hours before the day fixed for the meeting. A copy of the notice can also be posted up in a prominent place in the workshop.

After the meeting, the President will prepare the Minutes of the Meeting, and will distribute one copy to each of the members of the Works Committee.

APPENDIX VII.

Workers' Welfare Committees in Ordnance Concerns.

Copy of Additional Director General, Calcutta, letter No. Z-00587|TE|O.F. 12-A, dated 12th July 1944 to All Ordnance Factories.

SUBJECT :—*Labour Welfare Committees for Ordnance Factories.*

A copy of the Department of Labour's ' Model Constitution ' for Labour Welfare Committees is forwarded herewith and proposals outlining the suggested application of the ' Model Constitution ' to Welfare Committees in Ordnance Factories is annexed hereto.

Superintendents|Officers-in-Charge are requested to examine '' Model Constitution ' and suggestions for their application to Ordnance Factories and submit their comments to this office for consideration before 31st July 1944, after which date no recommendations will be considered.

Copy to O. F. (C).

ANNEXURE.

Proposals Outlining the Suggested Application of the Model Constitution to Welfare Committees in Ordnance Factories.

The Labour Welfare Officer should be the President of the Committee ; or, in his unavoidable absence, an officer nominated by the Superintendent| Officer-in-Charge, and the constitution for the larger Factories should be on the following lines, which should be regarded as a maximum :—

President :—Labour Welfare Officer.

Managements Representatives.	*Workers' Representatives.*
1 W.M. (A) or A.W.M. (A) ..	.. 1 representing Supervisors' Establishment.
1 Production officer	.. 1 representing Clerical Establishment.
1 Foreman or Assistant Foreman	.. 2/3 representing E.T.A. Establishment.
1 In-charge of Labour Bureau ..	.. 1 representing Menial Establishment.

The E. T. A. representatives should represent groups of sections each group having approximately similar numbers of workmen and one representative being chosen by each group.

2. In the smaller factories the number of members should be scaled down *pro-rata* which may be done by combining the Supervisory and Clerical Establishments into one constituency and including the Menials with E.T.A. Establishment but a certain amount of flexibility in the numbers of representatives can be provided for.

3. In accordance with the 'Model Constitution', the Superintendent| Officer-in-Charge will be entitled to attend the meetings of the Committee and take part in the discussion when he so desires. His right of attendance will ordinarily, however, be exercised only when he wishes to explain to the Committee his views on a particular subject.

4. The Government of India's Assistant Labour Welfare Officer in the Province will also be entitled to attend the meetings of the Committee.

5. As regards the method of electing the representatives to the committee, it is considered that the alternative method laid down in para. 5 of the 'Model Constitution' should in the meantime, be adopted in the Ordnance Factories and the election made by a show of hands, after nominations have been made, at a meeting of the group, presided over by the Labour Welfare Officer, a separate meeting being held for each group entitled to elect a representative.

6. As far as practicable the Committee should consist of representatives of the Management and the Workers in equal proportions but, it is advisable to keep the number of members as low as possible and, in no case, should the total membership exceed 12.

7. It should be explained to the workers that they are free to choose any of their colleagues as their representative and they should be advised to choose men who are intelligent and in whom they have confidence. The actual selection of candidates should be left to the workers themselves and names should not be suggested to them by the Management.

Model Constitution for Labour Welfare Committees in Central Establishments, Constitution of the Labour Welfare Committee Factory|Depot.

The name of the Committee shall be the Labour Welfare Committee,

..... Factory|Depot.

2. The objects of the Committee are :—

(i) To furnish a means for the association of representatives of workers in the development of welfare activities in the establishment ;

(ii) to enable the administration to explain to representatives of workers, and the workers through them, relevant departmental orders and the views of the administration on representations made on behalf of workers.

3. The powers and duties of the Committee shall be :—

(i) to lead workers towards greater efficiency in their work.

(ii) to help the growth of a sense of responsibility and value of organisation amongst workers and the spirit of co-operation between the workers and the administration.

(iii) to assist in the dissemination of correct information regarding departmental rules, orders and procedure and to neutralise erroneous information.

(iv) to put forward proposals for extension and improvement of welfare activities in the establishment and in labour residential areas.

(v) to make representations regarding general terms and conditions of employment and work, provided that the Committee shall not concern itself with individual grievances and representations, except where they involve some general principle, in which case the matter may be raised in the Committee, with the prior consent of the President, and

(vi) to inculcate Safety First principles amongst workers.

4. The Committee shall consist of :—

(a) The Officer-in-Charge of Administration [or another senior officer nominated by the (Head of the establishment) and assistants] :

(b) The Labour Welfare Officer (or the Civilian Labour Officer) and

(c) Representatives of workers elected as follows :—

Constituency.	*No. of representatives.*
Department/Group/Section	
Department/Group/Section	
Department/Group/Section	
* Artisans.	
* Supervisors.	
* Leading Hands and/or Clerks.	
* Searchers, Chowkidars and Peons.	
* Sweepers.	
Total Number of representatives ..	

* NOTE.—Workers who are entitled to elect representatives from their own class, shall not be entitled to vote at the election of representatives from the Department/Group/Section to which they are attached.

(ii) The (Head of the establishment) and the Government of India's Assistant Labour Welfare Officer in the Province may attend and participate in the meeting of the Committee, whenever they so desire.

(iii) The Labour Welfare Officer (Civilian Labour Officer) shall be the President of the Committee.

(iv) The Committee shall elect one of its members as Honorary Secretary.

5. The procedure relating to election of representatives of workers shall be as follows :—

(i) A date shall be fixed as the closing date for nominations. At least seven days' notice shall be given to workers of this date.

(ii) Simultaneously, the date of election shall also be announced. This date shall not be earlier than three days after the close of nominations.

(iii) Every candidate shall be attached to the constituency from which he is seeking election. Within 24 hours after the close of nominations, the names of the candidates, who have been properly nominated, shall be announced. It shall be a condition of proper nomination that the candidate's nomination paper is signed by at least two workers belonging to the constituency.

(iv) If there are more candidates from any constituency than the number of seats allotted to it, then voting shall take place on the election day. If the number of candidates is equal to or less than the number of seats, the candidates shall be declared elected without contest.

(v) Separate boxes or separate compartments in one box shall be allotted to the various candidates. The lid shall be kept locked during the voting, slots being provided for dropping voting tokens. The top of each box or compartment shall be marked in a distinct colour. The colours allotted to the various candidates shall be announced to the workers concerned. A board shall be placed near the ballot box to indicate the allotment of colours the names of candidates being written in the languages of the province. The ballot boxes shall be kept in such a manner that a worker may cast his voting token into whichever box or compartment he desires without being seen by any other person.

(vi) Each worker in the constituency shall be given as many voting tokens as there are seats from the constituency. Workers' identity discs may be used for this purpose.

(vii) If two or more candidates for a seat get equal number of votes, the matter shall be decided by lot.

(viii) If no nominations are received for any seat or the number of nominations are less than the number of seats, a second announcement shall be made as provided for hereinabove, calling for nominations for seats then remaining vacant. If some seats again remain unfilled thereafter, they shall be filled by nomination by the (Head of the Establishment).

Alternative :

6. The procedure relating to election of representatives of workers shall be as follows :—

(i) Meetings of workers in each constituency shall be held separately. The date, time, and place of the meeting shall be announced at least three days before the time fixed.

(ii) The Labour Welfare Officer (or Civilian Labour Officer), or in his absence an officer to be nominated by the (Head of establishment) shall preside over the meeting. He shall call for nominations, and in the event of a contest, votes shall be taken by show of hands.

(iii) If two or more candidates for a seat get equal number of votes, the matter shall be referred to the meeting a second time. *If there is a tie once again, the matter shall be decided by lot.*

7. The members of the committee shall hold office one calendar year. They shall, however, be eligible for re-election. Members elected at bye-elections shall also retire at the end of the calendar year.

8. Members (of each side) shall form a quorum. A meeting adjourned for lack of a quorum shall not require a quorum.

9. If a representative ceases to belong to the constituency from which he was elected, or is absent from three consecutive meetings of the Committee without leave or sufficient cause, he shall cease to be a member of the Committee.

10. A bye-election shall take place to fill a vacancy in the Committee not later than 30 days after the occurrence of the vacancy.

11. The committee shall meet at least once a month. At least three days notice of an ordinary meeting shall be given.

12. The minutes of the meeting of the Committee shall be recorded in a book, and shall after signature by the President and Honorary Secretary be submitted to the (Head of the establishment for orders.)

13. A matter which has been discussed and decided at a meeting of the Committee shall not again be raised until three months after the date when it was last discussed, except with the special permission of the President.

14. (a) The Committee may suggest amendments to the Constitution for the consideration of the (Head of the establishment).

(b) The Constitution may be amended or repealed by the (Head of the establishment), provided that he shall, as far as practicable, give the Committee an opportunity to discuss and express their opinion on the proposed amendment or reasons for the proposed repeal.

Explanatory Note Regarding Model Constitution for Labour Welfare Committees in Central Establishments.

1. (a) It is advisable to keep the number of members of the Committee as small as possible, in any case not exceeding 12.

(b) Representatives may be allotted to various Departments|Groups| Sections or classes of workers in proportion to their strength. If the number of workers in Departments|Group|Section or a class of workers is small, such workers may be included in another constituency.

2. It should be explained to workers that they are free to choose any of their colleagues whom they like as their representatives and need not hesitate to exercise their votes freely. They should be advised to choose men who are intelligent and in whom they have confidence. The actual selection of candidates should be left to the workers and it is advisable not to suggest names to them.

3. (a) It is recommended that the system of secret ballot outlined in section 5 of the Model Constitution be preferably adopted for the election of representatives. The system has been tried in a large Depot in the United Provinces and found workable. No difficulty was experienced in conducting the election.

(b) The system is not so complicated as it may at first sight appear. Some advance publicity amongst workers is, of course, essential. This may be entrusted to the Labour Welfare Officer|Civilian Labour Officer and his staff, who will also be responsible for conducting the election.

(c) 2 to 4 hours may be fixed for voting in a constituency. Heads of Departments|Group Officers may be asked to send workers to the place of voting which should be as near to the place of work as possible in batches of, say 20. In this manner voting is well regulated and the work of the establishment is hardly affected.

4. Minutes should be brief but correct record of the proceedings of meetings of the Committee. All matters raised and decisions thereon should be recorded even if a proposal or resolution had been withdrawn after discussion or on the advice of the President or the Officer representing the Administration at the meeting.

5. There may be a tendency especially at beginning for some representatives to make lengthy speeches. They should be tactfully persuaded to be brief ; but they should at all times be permitted to express themselves freely.

6. Representations should be received patiently and considered sympathetically. If they are not acceptable from the Administration's point of view. representative should be told so and the position should as far as possible, be explained to them.

7. Representatives should be made to realise that it is their duty to put forward the point of view of the workers in a responsible and reasonable manner, to act as their leaders and at the same time to explain to the workers the point of view of the Administration.

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LABOUR INVESTIGATION COMMITTEE

GOVERNMENT OF INDIA

REPORT

ON

LABOUR CONDITIONS IN THE GLASS INDUSTRY

Ex. L. 50

BY

B. P. ADARKAR

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CONTENTS.

PART I.

	Page
PREFACE	iii
ACKNOWLEDGMENT	vi
Chapter I.—INTRODUCTION	1
Economic Background	1
Structure and Location	2
CHAPTER II.—SURVEY OF LABOUR CONDITIONS	3
General	3
Applicability and Enforcement of Labour Legislations.—The Factories Act. The Workmen's Compensation Act. Maternity Benefit Acts. Inspection	3
Process of Production and Types of Workers.—Blownware. Sheet-glass Manufacture. Bangle Factories. Cottage Shops	4
The Nature of Accidents	8
Occupational diseases	9
Working Conditions	9
Excessive Labour Turnover	11
CHAPTER III.—THE UNITED PROVINCES	12
I.—GLASS FACTORIES	
Employment.—Recruitment. Length of Service. Classification as Permanent and Temporary. Labour Turnover and absenteeism. Standing Orders. Involuntary Unemployment	13
Wages and Earnings.—Basic Wages. Dearness Allowance and Bonus. Miscellaneous	17
Working Conditions.—Hours of Work. Ventilation, Lighting etc.	22
Welfare Activities	23
Housing	24
Trade Unions	26
Indebtedness	27
Existing Legislation and its Enforcement	27
II.—FIROZABÁD COTTAGE SHOPS	28
Employment	29
Wages and Earnings	29
Working Conditions	31
Miscellaneous	31
CHAPTER IV.—BENGAL	31
Employment.—Recruitment. Promotion etc. Labour Turnover and Absenteeism ..	32
Wages and Earnings.—Basic Wages. Average Daily earnings Overtime and Deductions. Wage periods, Waiting Periods and Paid Holidays	33 34
Working Conditions.—Hours of Work and Shifts. Factory Premises. Rest Shelters	35
Sanitation and Welfare.—Sanitation Health. Canteens. Creches. Grain Shops ..	36
Housing	38
Trade Union	38
Working of Labour Acts	38
Indebtedness	40
Provident Fund and Gratuity	40
CHAPTER V.—BOMBAY.	40
Introductory.—Number of Factories and Workers. Sampling of Units	40
Employment.—Figures for Employment. Length of Service. Classification of Workers. Apprentices. Labour Turnover. Absenteeism. Recruitment. Labour Officers.	42

Page

Wages and Earnings.— age-rates. Principles of Wage Fixation. Dearness Allowance. Bonus and other Allowances. Earnings. Overtime. Deductions. Wages Payment. Sundays and Holidays 45

Working Conditions.—Shifts and Hours of Work. Factory Conditions. Shelters .. 48

Welfare Activities.—Latrines, Urinals, Water-supply, etc. Medical Aid. Canteens, Creche, Schools and Grain Shops 49

Housing Accommodation 51

Trade Unions and Strikes.—Trade Unions and Works Committees. Strikes .. 51

Factory Legislation.—Factories and other Acts 52

Indebtedness, Provident Fund and Gratuities 52

CHAPTER VI.—THE PUNJAB 52

Employment.—Figures for Employment. Labour Turnover. Absenteeism .. 53

Wages and Earnings.—Average Monthly Earnings. Rationale of Wage Fixation. Overtime, Fines, etc. Holidays 55

Working Conditions.—Hours and Shifts. Ventilation, etc. 57

Welfare Activities 58

Housing Accommodation 58

Trade Unions and Strikes 59

Factory Legislation.—Occupational Diseases. Accidents 59

CHAPTER VII.—MADRAS AND BANGALORE— 60

I.—MADRAS. 61

Employment.—Figures for Employment. Labour Turnover. Absenteeism. Recruitment of Labour 61

Wages and Earnings.—Earnings of Main Workers 62

Working Conditions.—Hours of work and Shifts. Miscellaneous .. 63

Housing 63

II.—BANGALORE 63

Employment.—Figures for Employment. Turnover. Absenteeism. Recruitment of Labour. Relations between Employers and Labourers 64

Wages and Earnings 65

Working Conditions 66

Welfare Activities 67

Housing 67

Factory Legislation 68

Indebtedness 68

Provident Fund 68

CHAPTER VIII.—SUMMARY AND CONCLUSIONS— 68

Appendix I.—Wages and Earnings of Workers in a Leading Glass Factory in the U. P. 74

Appendix II.—Daily Wages and Earnings of Workers in a Sheet Glass Factory (Sheet Glass Section) 75

Appendix III.—Average Daily Wages and Earnings of Workers in the same Sheet Glass Factory (Boiler, Power House, Blacksmithy, Workshop and Paper Sections.) .. 76

Appendix IV.—Particulars of Rates of Wages Paid to the Workers in a Leading Glass Factory (Bombay) 77

Appendix V.—Wages and Earnings in Glass Factories (Bombay Province) 79

Appendix VI.—Wages of Glass Factory Workers in the Punjab 80

Appendix VII.—Estimate of Total Employment in the Glass Industry 81

Appendix VIII.—Glossary of Indian Terms 83

PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of a machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L.4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each : The following industries were selected for the purpose :—

A. *Mining*. (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations*. (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry*. (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making, Cigar and Cigarette. (29) Mica Splitting. (30) Sugar. (31) Cotton, Ginning and Baling. (32) Rice Mills.

D. *Transport*. (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour*. (35) Port Labour. (36) Municipal Labour. (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad-hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in defferent provinces (and even states) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legistation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance, of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection, it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised, industries such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature, no such information could have been readily available in advance. In certain cases therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed, and (b) supplementary and special questionnaires in respect of certain industries such as plantations, mines, railways, rickshaw pullers, port labour municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton, woollen and jute, textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquires, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst Employers' and Workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North West Frontier Province where none of the Industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint its own Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) the Committee, as a whole, to study each industry, (ii) the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of factories, Port authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

D. V. REGE, *Chairman.*

S. R. DESHPANDE
AHMAD MUKHTAR
B. P. ADARKAR } *Members.*

TEJA SINGH SAHNI,
Secretary.

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CHAPTER I.—INTRODUCTION.

I. *Economic Background.*—Glass manufacture has been known in India since time immemorial, but it assumed the character of a modern industry only very recently, during the war of 1914-18, when Indian manufacturers made considerable efforts to fill the partial void created by the stoppage of imports from Czechoslovakia, Belgium, England and Germany. With the cessation of hostilities in 1918, however, imports from abroad rapidly increased in volume and the infant industry, though narrowly escaping an early death, had a somewhat rickety existence till the outbreak of the present war. The only branch of the industry which held its own against foreign imports was bangle manufacture in Firozabad, for the home-made bangles competed successfully with the Japanese and Czechoslovakian varieties. Despite adverse circumstances, a number of new factories for the manufacture of hollow-ware and bottles and one for the manufacture of sheet-glass—the only one of its kind in Asia—were established in the period intervening between the two wars. The total value of blown glassware and bangles was estimated by Sir Alfred Chatterton in 1919 at Rs. 40 lakhs a year. This had increased to about Rs. 120 lakhs by 1939. In September 1939, therefore, the industry was not as unprepared as in 1914 to exploit the advantages of an incidental war-time protection. The heavy demand from the Army for hollow-ware, lampware, tableware, etc., gave a powerful fillip to the industry and almost all units have been working to their maximum capacity in recent years. Besides meeting this demand and catering for the needs of local markets, the Indian glass industry has been able to increase exports to foreign countries by about 245 per cent. within a short period of two years (1939-41). The value of glassware exported from India during 1938-39 was Rs. 1,68,991 and this rose to Rs. 583,774 in 1940-41. As for the imports the following table gives consolidated figures for 1909-14 and succeeding years :—

TABLE 1.

Import of Glass and Glassware into India.

(Value in Rs. Thousands).

	1909-10 to 1913-14 (average).	1914-15 to 1918-19 (average).	1919-20 to 1923-24 (average).	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44
Bangles ..	91,55	31,59	74,88	24,20	18,40	6,86	2,18	10	..
Bottles & Phials.	12,56	25,14	37,80	27,95	20,59	24,77	13,97	5,59	3,60
Beads & False pearls.	24,67	17,95	37 12	13,38	8,50	3,45	1,34	11	..
Sheets & Plates.	17,46	20,09	42,98	23,70	19,94	17,53	21,71	9,94	1,94
Funnels, Globes, etc.	12,44	14,21	18,75	5,17	3,78	2,02	2,67	1,58	5,87
Other Glassware.	3,24	19,94	41,52	30,72	30,56	31,03	23,68	8,32	4,04
	1,61,92	1,28,02	2,53,05	1,25,12	1,01,77	86,26	65,55	25,64	15,45

(From the *Review of Trade*,—various years).

The above facts lead us to the conclusion that the glass industry is, at present at any rate, in a prosperous condition and that given suitable protection in the post-war period against possible foreign dumping, it is bound to develop rapidly to meet the increased demands of a reconstructed India. At present, in spite of the availability of cheap labour, the average cost of production of glassware in India is much higher than what it would be if the basic raw materials were used in proper proportion and the pot furnaces which consume excessive coal, replaced by modern tank furnaces. It is estimated that by effecting these changes, the cost of production would go down by over 30 per cent. besides improving the quality of the manufactures.

II. *Structure and Location.*—The Indian glass industry falls into five broad divisions according to the nature of goods produced viz., (i) Bangles, (ii) Sheet Glass, (iii) Hollow-ware, (iv) Bottles, and (v) Fancy goods. Bangles are produced both on factory and cottage basis. The old cottage industry is mainly located at Firozabad in the United Provinces. The *shishgars* of this town have an ancient tradition behind them and their skill and dexterity in putting on the market fresh varieties every season has enabled them to carry on their small-scale operations even in the present machine age. There are a number of large establishments also, where bangle spirals are manufactured, though the joining and polishing of the glass rings are done in innumerable small shops in the town. Sheet glass is manufactured in the U. P. Glass Works at Bahjoi and this is the only factory of its kind in Asia. As for hollow-ware, this is being manufactured in a large number of establishments in the U. P., Bengal, Bombay, the C. P. and the Punjab and to a smaller extent in Madras also. The main types of goods manufactured are : glasses, tumblers, jars and lampware. Some of these concerns have effected considerable technical improvements with the technical help of the Government of India and the Provincial Governments. Among the larger establishments producing hollow-ware are the Ganga Glass Works Ltd., at Balawali, the Ogale Glass Works at Karad, Bombay, the Paisa Fund Glass Works at Talegaon, near Poona and the Bombay Glass Works, Bombay. Similarly, bottles are also being produced in a number of factories and some of them have automatic and semi-automatic machines for blowing glass. Apart from the above, the Glass Technology Section of the U. P. Government has trained a number of men in the manufacture of fancy goods. There is also an old centre in the district of Hathras (U.P.) where fancy goods like glass buttons, pendants, animal figures and a crude variety of beads are made.

There can be little doubt that an industry which enjoys the triple advantages of a sufficient labour supply, availability of most of the raw materials and an extensive home market has the capacity to develop at an accelerated pace, if it is given a measure of protection against the more efficient foreign producer. The consumption of glass *per capita* in India is one of the lowest in the world and its inevitable increase will expand the home market considerably. Moreover, the skill of Indian blowers is in no way inferior to that of the foreigner and the quality of goods can be improved, if the factories are modernised. Mr. Dixon states : "The poor quality of much of the glassware produced in this country is largely due to the lack of supervision and not necessarily to any want of skill on the part of the glass blowers. The management as a rule, does not insist upon a high standard or offer the blowers any inducement to maintain one, and almost any article however badly made, will usually be accepted. It is not surprising, therefore, that the blowers themselves are not as particular as they might be."

CHAPTER II.—SURVEY OF LABOUR CONDITIONS.

General.—Some of the problems which are of common importance to the industry as a whole and are not peculiar to any particular region may be conveniently stated here. Among such topics are legislation affecting the industry, total employment, processes of production, nature of accidents, occupational and other diseases and some special problems such as unhealthy working conditions and high labour turnover.

I.—Applicability and Enforcement of Labour Legislation.

The Factories Act.—The Factories Act obviously applies to all glass factories using power and having more than 20 employees. However, in some Provinces, e.g., the United Provinces, the Factories Act has been made applicable to glass factories having 10 or more employees, subject to exemptions under certain Sections of the Act. Both in large and in small factories, however, the Factories Act is constantly violated, so far as labour matters are concerned. In some cases, there is splitting-up of processes, both with a view to reduction of the number of workers to a sufficient level at which the Act would not apply, and with a view to evasion of the Act in respect of workers not directly concerned with mechanical processes. The provisions of the Act which are mostly frequently infringed are those relating to children and adolescents. In respect of Section 50 of the Act prohibiting employment of children below 12 years, practically everywhere children were found to be employed during the course of our investigations. What is more, they were made to work long hours, in spite of Section 54 which limits children's hours of work to 5 and spreadover to 7½ hours. Children are mostly employed as mould-holders, neck makers, bangle-joiners, helpers and coolies, and although their work is no less efficient or strenuous than that of adults, they are paid at lower wages on the plea of experience, age and requirements.

Unfortunately, the Employment of Children Act, 1939, does not apply to the glass industry, although it applies to 9 other industries of the nature of cottage industries. It cannot be said that the conditions of work in that section of glass industry which is run on a cottage basis (mainly confined to bangle manufacture) are better than in any of the other 9 unregulated industries covered by the Employment of Children Act. It was found that little children at tender ages were working near the *chulas* as also in dingy workshops where the work of joining of bangles was carried on over kerosene lamps or gas flames in rooms which knew neither ventilation nor light. No doubt, in many cases, the children earned good wages for hard work, but their health and general physical development were extremely unsatisfactory. In the course of our investigations, several children were found with burns and cuts on their bodies which were covered with bandages. The children were made to work in spite of such handicaps, often as a result of an understanding between employers and parents. In view of all these facts, there seems to be no reason why the Employment of Children Act should not be made applicable to glass manufacture as well.

The Workmen's Compensation Act.—The commonest accidents in the glass industries are those arising from cuts and burns, as will be seen later. Unfortunately, a majority of such accidents are of short duration and the "waiting period" of 7 days under the Workmen's Compensation Act enables the employer to escape all liability. When the worker is laid up, as a consequence of the burns or cuts, he not only does not get any compensation but loses his wages as well for the period of absence from work. Even when accidents are

serious, employers escape liability by stating that the workman was " under the influence of drink or drugs " or that the accident was due to his own wilful negligence, etc. In the rare cases in which compensation is paid, it falls very much short of the amount laid down in the Act. More often than that, however, the worker is bundled off to his village, far from the scene of occurrence.

Maternity Benefit Acts.—In most Provinces, no maternity benefit is paid in spite of there being a Provincial Act in operation. Either widows are employed, or women workers are dismissed at the first sign of pregnancy. Apart from this, generally women workers and sometimes even the employers appear to be ignorant of the existence of such an Act. Some employers naively stated that pregnant women worked even up to the last moment and returned to work a fortnight after confinement.

Inspection.—The main difficulty in the case of this industry, as in others, is that factory inspection is faulty, superficial and hopelessly inadequate. The factory inspectors appeared to be more concerned with less important matters like whitewashing, and technical aspects of factory construction than with human aspects of labour. Employment of children and adolescents, hours of work, payment of wages, accidents and such other matters claim less attention. This is probably due to the fact that inspectors have hardly any time to go into details of law in respect of all these matters and it is to be feared that, in many cases, their training in law and labour matters is not so adequate as in engineering and science. The inadequacy of the factory inspectorates in the various Provinces has been shown clearly in the records of visits paid to the glass factories under investigation. In some Provinces certain factories were never visited at all, or visited once in two or three years. It is obvious that if the factory legislation is to bear any fruit, its enforcement requires an adequate number of inspectors in each Province, with proper training and vigilant interest in labour welfare.

II.—Processes of Production and Types of Workers.

The processes of production and types of workers are different in the three main sections of the industry, viz., blownware manufacture, sheet glass manufacture and bangle manufacture. The variety of blownware has increased considerably in recent years but the processes of production are more or less the same in all factories producing hollow-ware. There is only one factory producing sheetglass and most of the processes therein are mechanised. The Manufacture of bangles falls into two sub-sections : (i) in cottage-shops, and (ii) in factories where glass is drawn into spirals and later cut and joined.

Blownware.—While most of the factories manufacture glass from the basic raw materials—silica, soda ash, calcium oxide, borax and saltpetre, there are a few which merely purchase broken pieces of glass in the market and remelt them. Usually, however, both the methods for the preparation are stored in a mixing room in which a few workers known as " mixer wallas " or simply " mixers " weigh out these in prescribed proportions and put them in big mixing troughs. These troughs are usually wooden boxes but in some concerns concrete batch mixers have been built. Mixing is done by hand though in a couple of factories screw-mixers have been provided. In this connection, Mr. Dixon writes : " The thorough mixing of the batch is a very important operation as it ensures that all the silica is in contact with the fluxing agents and that all the small quantities of oxidising and colouring agents

are properly distributed. Efficient mixing, therefore, assists in the ready melting of the batch and produces even colour distribution and fining. Sufficient attention is usually not paid to it ".* Obviously, hand-mixing is responsible for this. The mixture, which is technically known as the " batch " is transferred to the pot or tank furnace. Broken pieces of glass (or " cullet ") are also put in the furnace along with the batch. The pots are fired from below and heated to a temperature of 1300°C when the batch and cullet are converted into a homogenous molten mass. The next is the " finding " process which consists of removing the small seed bubbles by allowing the melted glass to remain at a temperature of 1250°C for about 2 hours. It is further cooled down to about 1000°C before blowing operations are started.

The blower has 4 or 5 men to assist him in his work and together they work as a well-combined team. The assistants of the blower are two helpers, a moulder, a " Cracker-off " and a neck-man, if bottles are to be manufactured. Molten glass is taken out of the furnace by helpers through small openings in the furnace known as " windows ". By a careful manipulation of the blow-pipe, the helper takes out only the required quantity of glass at one end of the pipe and after blowing it a little, he gives the pipe to the blower who alternately swings it and blows the glass into shape. The shaped glass or " parison " is then put into the mould held in position by a moulder, and a final puff by the blower finishes his part of the task. The glass cools down inside the moulds taking the shape of the mould. The gaugemen then take the bottles to the neck-maker who works near another furnace and shapes the necks of the bottles. If lamp globes are manufactured, the parison made by the first helper is re-strengthened by a dip in the pot containing molten glass before the blower takes the blow-pipe. The remaining processes are the same here as in the case of bottles. The blownware thus obtained has to be strengthened by re-heating in another furnace known as the " annealing chamber ". The globes, bottles and other ware are either fired directly by being put on the hearth of the annealing chamber or arranged in a drum which is put inside the furnace. After this, the fire is allowed to die out which ensures a gradual cooling down of the ware to the atmospheric temperature. The blownware is then removed and defective pieces are sorted out and the approved ones packed. Packing is done mostly by women packers in gunny bags or baskets. If, however, the edges have to be smoothed, there are a set of " grinders " to do the job. This is, of course, done after sorting. The annealing process is defective in almost all the factories, barring a few new ones which are equipped with continuous annealing " lehrs ". A few factories have automatic and semi-automatic blow machines for blowing bottles. Only a semi-skilled helper is needed to complete the blowing process. In the Ogale Glass Works of Bombay, some semi-automatic suction-and-blow machines have been constructed to manufacture special types of globes which fit into the globe-holders perfectly.

Sheet-Glass Manufacture.—In the U.P. Glass Works Ltd., Bahjoi, most of the processes have been mechanised. The molten glass is produced in the usual manner in modern tank furnaces and is automatically drawn into sheets. These sheets are transferred by sheet-carriers from near the machine to cutting rooms where " glass cutters " cut the sheets into pieces as per requirements. These pieces are carefully packed by another set of workers known as " packers " into wooden boxes. A number of carpenters are employed to make such boxes and these, as well as the cutters, are employed on a piece-rate

* E. Dixon : *A Survey of the Indian Glass Industry, p.* 15.

basis. Apart from the categories of workers enumerated above, there are the technical hands on the machines like drivers, fitters, firemen, blacksmiths, etc. In the U. P. Glass Works, Bahjoi, some electricians and helpers are also employed. It is only in this concern that even technical staff are employed on daily rates.

Bangle factories.—Bangle factories are mainly situated in Firozabad. There are three main types of such workshops : (i) for the manufacture of glass and bangle rings, (ii) for the manufacture of bangle glass only, and (iii) for cutting and decorating only. It may be mentioned here that in Firozabad there is a marked sub-division of allied processes and each process is carried on under separate roofs. The first type of factories manufacture block glass which is re-melted by *shishgars* (*lit.* glass-makers) in their *bhattas* (ovens). In these concerns there are only a few categories of workers apart from the unskilled male and female coolies. The batch is prepared by mixers and melted in pot furnaces. Molten glass is ladled out in small quantities and moulded into blocks. Usually, no iron moulds are used. The moulder takes out some molten glass at the end of a long iron bar and shapes it into a block by pressing the cooling mass against a flat iron block known as " marver " with the help of a crude iron tool. If coloured blocks are required, the usual colouring agents are added to the batch.

The manufacture of bangles is a complicated task. First, a glass parison is prepared in the manner just described and then taken to the most skilled worker in the factory known as *tarwala* (thread-man). He sits in front of a furnace and manipulates the process of drawing out glass into threads of suitable thickness. He is assisted by another worker known as *Belanwala* (roller-man). The *tarwala* holds the rod at one end and heats the glass block or parison attached to the other end by putting that end inside the furnace. In the other hand he holds another long iron rod and when the parison becomes sufficiently viscous, he draws out the glass into a thread with the help of the rod. The thread is attached to an iron roller running transversely across the furnace though removed to its farther end. When the thread has thus been attached to the roller, the *belanwala* winds the roller rapidly with the help of a handle attached to it. By an arrangement, the roller is imparted a screw motion and the thread is wound on the roller in the form of a spiral. If a multi-coloured bangle is required, the original parison is first formed out of that variety of coloured glass which is to form the nucleus of the bangle. Later, small glass of other colours is welded on to its faces and this composite parison is manipulated by the *tarwala* as described above. When the entire roller has thus been wound up, the thread is cut and the roller removed from the supporting axles. By means of a hook, the glass spiral is removed and cut into open rings by scratching the entire length of the spiral with a piece of carborundum. The *tarwala* is the highest paid worker in the bangle factories and earns something like Rs. 200 per month. Glass spirals of uniform thickness can be obtained only if he maintains an even tension on the thread. Almost continuously, he moves the parison back and forth in order to maintain that evenness, and yet he is able to avoid giving jerks to the thread. The task of the *belanwala* though simple is by no means easy. The success of *tarwala's* efforts would be jeopardised if the roller is not wound at a very uniform speed. Once started, the process has to be carried on continuously for hours together, and for these two categories of workers there is not even a moment's respite. It is not surprising therefore, that many a *tarwala* and a *belanwala* faint at their posts in the course of the operation.

The next process, viz., joining the ends of the ring by welding them together over the flame of a burner is carried on in a large number of subsidiary cottage shops, a description of which will be given later. The joined bangles are taken to glass bangle cutting and decorating factories. Here, skilled workers sitting in a series cut edges in the bangles by grinding them on rotating wheels. The painting of bangles is done by another set of workers sitting in a different apartment in the same building. The cut and decorated bangles are strung together in *todas* (bunches), each *toda* consisting of 288 bangles, and are put on the market for sale. In recent years the factories have produced bangles in another way also. At first a glass pipe is manufactured like any other hollow-ware and is then sent to *addas* (cutting shops). There are about 240 *addas*. The work is done on a piece-rate basis.

Cottage Shops.—Cottage Shops are spread throughout Firozabad and almost every house has one on the ground floor. There are three distinct types of such shops : (i) the *bhattas* of *shishgars* where bangles are manufactured in the traditional way, (ii) joining shops where the open ends of the glass rings are welded together, and (iii) shops for cutting edges, painting, enamelling and setting of facets. There are at present about 200 *bhattas* in Firozabad and in each one of these, four or five persons work, two of whom may be children. There is a marked specialisation of functions. Three of the five persons sit round a small furnace which has three windows one for each person. Block glass purchased from factories is re-melted in a pot put inside the furnace. One of the men takes out a small quantity of glass through the window and shapes it into a conical parison. This parison is passed on to the second man who re-heats it in the next section and when the edge of parison becomes sufficiently viscous, he draws it out into thin rods with the help of another iron rod. These glass rods may be 4 to 6 feet long and drawing them into uniform thickness is the most difficult process in this method of bangle manufacture. When multi-coloured bangles are to be made, a composite parison containing glass of different colours is prepared and the *tarwala* while drawing out the rods dexterously rotates the parison so that glass of all the colours may be drawn out. These rods are then cut into suitable lengths by scratching them with carborundum. Each one of these lengths goes to make a bangle. The third man puts these pieces into the hearth and when they have been heated to workable viscosity, the ends are joined together with the help of a pair of tongs. The same man gives the bangles a perfectly circular shape by straining them on crude anvils. The bangles are then thrown on the floor and later collected into baskets by small boys. In some of the *bhattas*, weldless bangles are also manufactured. The processes here are further simplified. A small quantity of glass is taken out at the end of a rod and when it is held vertically, the point of the rod pierces the glass. The ring is widened a little by suitably revolving the rod and then transferred to a wooden anvil. The rest of the process is the same as that for the welded bangles. If, however, some impressions are to be made on the outer side of the bangles, a carved wooden mould is pressed against the sides while the bangle is still on the anvil.

There are over 500 joining shops in and around Firozabad. Each shop is run by a *juraiwala* (employer of joiners) who is the proprietor of the shop. He employs workers known as *juraiyas* (joiners) on piece rates. The *juraiwala* obtains bangles on a contract basis and distributes these among the *juraiyas*. Kerosene oil is either supplied by the factory owners or purchased by the *juraiwala* in the market. Besides *juraiyas*, the *juraiwala* employs two other categories of workers—(i) *sadhaiyas* who heat the rings and

put the two ends close to each other and (ii) *pankhewalas* who work the bellows. Compressed air is blown by *pankhewalas* through kerosene or petrol and the resulting mixture of air and vaporised combustibles burns in burners placed in front of the *juraiyas*. Usually, however, ordinary kerosene lamps are used. A small blow-pipe is used to blow air through the flame of the burner and the resultant flame is directed at the ends of the bangle rings. When the ends soften they are joined together. It was found that children of tender ages, about 6 or 7 years old, are employed in these shops in large numbers, as *juraiyas, sadhaiyas* and *pankhewalas*.

Further processing of bangles is done in other shops and comprises cutting of edges, polishing, setting of facets and decorating in various ways. No attempt is made at standardisation of designs. On the contrary, every shop tries to put fresh designs on the market at frequent intervals. The process of cutting edges has been described already. As for painting and decorating, these are purely individual performances and the skill of the worker, gauged by the general acceptability of his designs, determines his wages.

III.—The Nature of Accidents.

The frequency of minor accidents like burns and cuts is very high in the glass factories. In the smaller establishments, most of the floor area under the shed is monopolised by the furnace around which helpers and blowers are constantly blowing molten glass and swinging the blow-pipes. For such operations the floor area per workers is too inadequate and a very large number of burns are caused in spite of the care with which the blowers swing their pipes. Sometimes, the moulder boy who holds the mould while the blower manipulates the parison, gets burnt if he is not very attentive. Serious cases of burns are not uncommon. The complications which arise in such cases due either to the non-ability of proper medical aid at the factory or to the negligence of the management in taking immediate steps, often make the case incurable. It was also found that in case of minor burns workers were not allowed paid leave nor were steps taken to get the wound dressed. In one factory a boy of 15 who had received severe burns was not allowed leave nor was treated with proper medicines or bandage. After a week, it was found that the wound had become septic and that if the operation which was to be performed later did not prove successful, there might be the necessity of an amputation ! Cases of cuts are commoner still though the sample device of providing workers with wooden sandals would reduce their number considerably. As at present, most of the workers walk about barefooted and small pieces of glass which are scattered over the entire compound pierce the skill necessitating in some cases minor operation. Apart from this, women who are employed for sorting cullet, receive cuts quite often. In factories manufacturing glass tubes, red hot electric wire is employed to cut the tubings and as no gloves are given to the workers who manipulate the wires, cases of burns occur occasionally. Other types of accidents are not peculiar to the glass industry but occur in all factories where machinery is used. Thus, in one factory, a coalman, while climbing a wooden ladder to feed the gas producer, fell down and died instantaneously.

When accidents occur, the employers have recourse to the saving clause in the Workmen's Compensation Act, which removes the liability of the employer " in respect of any injury, not resulting in death, caused by an accident which is directly attributable to—(i) the workman having been at the time thereof under the influence of drink or drugs." Unfortunately, it is true that the drink evil is prevalent among the glass workers and this may raise a presumption, howsoever feeble, in favour of the employers' contention. More frequent, however, is the usual " square-up " method and the

worker is speedily removed from the scene after the payment of third-class fare and a small sum of money. If the worker belongs to the *pardesi* category, he goes back home which may be in a small village in the U. P. or Bengal, making further pursuit of the matter impossible and fruitless. Barring a couple of factories or so no special or even ordinary steps have been taken to protect the workers against cuts and burns which occur so often that it becomes a terminological inexactitude to describe them as " accidents ".

IV.—Occupational Diseases.

A number of diseases from which glass workers suffer are occupational in character, although they may not find a place in Schedule III of the Workmen's Compensation Act. For, instance, the incidence of asthma and bronchitis is very high among the blowers and helpers. The incidence is so serious that these workers have to stop work intermittently, more so in winter when asthmatic attacks become frequent. In the process of mouth-blowing, lungs are over-strained and in the course of a few years the blowers contract these diseases, which often ultimately develop into pulmonary tuberculosis. Moreover, the use of the same blow pipe by a number of workers spreads such contagious diseases from one to another. Other diseases to which the workers in the glass factories, particularly the helpers and blowers, are susceptible are pleurisy and pneumonia. During the rains it sometimes happens that, after working for some time in front of the furnaces, workers rush out from the shed into the rain and this has often caused them to remain confined to bed for weeks together. As long as there are no shelters for the workers inside the factory premises such cases are bound to occur. It is also reported that some cases of silicosis have been detected among the mixers who work in closed rooms in an atmosphere laden with the dust of silica, lime and other chemicals. Besides injuring the lungs, the dust affects the eyes of the workers also causing serious diseases in some cases. Still was found that only in a few factories mixers were provided with gloves and goggles. The incidence of eye diseases is particularly high among the factory workers in this industry as the glare of the fire and intense heat affects the eyes directly. Conditions in the small cottages are no better. In the cottage shops, all *churi* workers generally and *jurai* and *sadhai* workers particularly suffer from eye diseases. Cutting, joining, polishing, enamelling—all these processes put a heavy strain upon the eyesight—which in the case of small children of 6 or 8 years employed in large numbers in these cottages is jeopardised for ever in their infancy. No statistical information, however, about the incidence of such diseases could be collected as there is neither a periodical medical examination of workers nor do the dispensaries attached to glass works, wherever they are, maintain proper statistics of cases treated therein.

V.—Working Conditions.

It is intended to draw attention here only to some of the main problems in regard to the conditions of work both in the factories and cottage shops, more detailed treatment of the topic being postponed to subsequent Chapters on regional surveys.

It was found in a number of cases that the factories do not adhere strictly to the declared hours of work. Sometimes, it happens that though the workers report themselves to duty at the scheduled time for the beginning of a shift, the molten glass is not ready due to insufficient heating and bad stoking. They have to wait for an hour or two before the work can be started and this is compulsorily compensated for at the end of the shift when all the workers have to stay on even after the scheduled hours of work. For technical reasons

this is made obligatory. The quantity of glass prepared is so adjusted that it can all be blown if the existing strength of workers work for 8 hours. If the blowing operations begin after the delay of an hour or two, they have to be carried on till late in the evening in order that all the glass may be consumed. There would, of course, be less objection to this if payments for work beyond the scheduled hours were at the enhanced rate prescribed under Section 47 of the Factories Act. Actually, in most concerns, overtime work is not so paid for. Then, as Section 35 of the Act (relating to weekly holidays) has been made inoperative in regard to glass factories in some Provinces, it becomes well nigh impossible to find out if a worker is granted a holiday after 14 days' work. Sometimes, workers work on the 15th day under an assumed name while an absence is registered against their real names.

As has been said above, basic materials for the batch are stored in a specially protected room where they are weighed out in prescribed proportions and then dumped together in mixing troughs or boxes. In order to ensure a ready fusion of the batch into glass, it is necessary that the ingredients should be mixed thoroughly. This mixing operation is performed in closed rooms generally and there is no arrangement to remove the dust of silica and sand which is thrown up in the process. Nor, as stated earlier are the mixers provided with dust respirators, goggles or hand gloves. For a pretty long period every day they have to work in an atmosphere saturated with particles of silica which affect their lungs. The dust of lime affects the eye of the worker and as the worker employs naked hands to mix the batch, the presence of lime sometimes causes scalds. The conditions under the blowing sheds also need mention here. While some of the bigger establishments have adequate floor area per worker, in the smaller ones the furnace occupies most of the space and what is left for the workers is too inadequate. The blowers and helpers have to swing their blow-pipes and in such scanty accommodation the slightest inattention or negligence on their part causes burns to others working nearby. Moreover, though the glare of the furnace obviously affects the sight of the workers, they are not provided with eye glasses. Further, those factories which re-melt broken pieces of glass (cullet) employ women to sort out the clear pieces, but here too are not provided with gloves. Moreover, generally, workers walk about bare-footed and it is only in very few concerns that leather or wooden sandals are provided to the workers. These two features account for a large number of minor cuts which can be avoided easily and without incurring much expenditure. The work of the *tarwalas* and *belanwalas* in Firozabad bangle factories is particularly strenuous and the fact that they have to work continuously with close attention in front of a furnace causes some of them to faint after two or three hours of work.

Conditions in the cottage shops at Firozabad are even worse. It was about a decade back that Mr. Dixon (*op. cit.* p. 22) wrote : " The conditions under which the cottagers make bangles at Firozabad have to be seen to be properly appreciated. Most of the so-called cottage factories consist of small one-roomed buildings, the floors of which are almost entirely monopolised by an open furnace containing a number of fire-clay pots of various coloured glasses. None of the cottage bangle factories have chimneys and they are always full of smoke." The U. P. Government have since made efforts to improve conditions and have at their own expense provided five model buildings with non-draught ventilation arrangements for the *jurai* work. Needless to say, the model buildings accommodate only an insignificant proportion of the workers. The rest still continue to work in the ill-ventilated one-roomed

buildings. This is all the more serious in view of the fact that a large number of children are employed in these shops who have to work long hours in the smoky atmosphere. Nor are the conditions of work any better in the smaller *bhattas* where *shishgars* manufacture bangles with or without the aid of hired labour. Their work is entirely unregulated and children and adults, all work for as long as continuous work near open furnaces is possible. No wonder that when they retire and go back home, they purchase a bottle or two at the nearest liquor shop and forget their ennui in drunkenness.

VI.—Excessive Labour Turnover.

The problem of excessive turnover of labour is common to almost all the centres of glass industry in India and figures as high as 60 per cent. per month have been recorded in some concerns. The most important reason for this would appear to be the comparative scarcity of skilled glass factory labour today. During the war years, the industry has developed rapidly and the total employment in the industry has gone up by about 100 per cent. since 1939. Obviously the supply of skilled workers could not have increased in proportion to the increased demand for them. The establishment of a number of new factories in the U.P., Bengal, Bombay, Punjab, and Madras necessitated a re-distribution of the available supply of skilled labour and this has caused an unduly large turnover. The following table shows the increase since 1939 in the average daily employment in glass factories in the three leading glass-manufacturing Provinces.

TABLE 2.

Increase in Factory Employment during War time.

Name of Province.	Average daily employment.		Increase %.
	1939	1943	
U.P.	4,733	7,753	63·80
Bengal	2,280	4,990	118·85
Bombay	1,025	3,293	221·26
Total for British India ..	8,934	18,328	105·15

From the above table it is clear that the industry has made phenomenal progress since 1939, particularly in the two Presidencies of Bombay and Bengal, where employment in glass factories has gone up by 221.26 and 118.85 per cent. respectively. It was found in the course of the present enquiry that a fairly large part of the war-time recruitment in the Bombay and Bengal glass factories represented labour brought from the U. P. The blowers particularly were in great demand and a section of them have now become a migratory band moving from factory to factory at pleasure. The problem of turnover, however, is as acute in Bombay and Bengal as it is in the U. P. Imported labour has, in most cases, behaved in an irresponsible manner and caused loss to a number of firms. To solve the acute problem of the shortage of labour, factory owners in Bengal and Bombay are obliged to send recruiting agents to other areas with enough money to pay for the travelling allowances of the recruits as also their incidental expenses. When the recruits reach Bombay, they are often enticed away by agents of other employers for employment in their factories. In this manner, the latter escape the expenses and trouble involved in importing labour from other areas and at the same time are in a

position to recruit the required number of workers though on a somewhat higher wages ! The process is repeated by another employer and a vicious circle has been set up from which for the present, there seems to be no escape for the employers. Nor can one legitimately expect a highly developed sense of gratefulness and responsibility among the workers when temptations are constantly put before them. The denudation of a large number of workers from the U. P. to other areas has created an acute shortage of labour in the factories there. As could be expected, each employer has tried to solve his own problems at the expense of his neighbours, causing a lot of turnover everywhere.

There are a few factors peculiar to the U. P. only. Quite 10 per cent. of the factory workers in Firozabad stay in their village homes 6 to 8 miles from the town. Everyday they perform the journeys to and from the factories on bicycles. It is stated that their main interest lies in agricultural operations and that they go to the factories merely to supplement their meagre earnings from the primary source, viz. agriculture. There are others who stay in the town itself but have strong agricultural ties. Both these types of workers go back to agriculture in the sowing and harvesting seasons.

A considerable amount of turnover is also being caused at present due to an irregular supply of coal and raw materials to the factories. Sometimes, it happens that a factory working to maximum capacity has to stop work suddenly because supplies of coal and materials are held up owing to transport difficulties. Often, when the chances of an early delivery of coal to a factory are small, there are dismissals *en masse*. In such circumstances services only of the superior technical staff are retained. All these factors have a cumulative effect and push up the figures of labour turnover to unprecedented heights.

CHAPTER III.—THE UNITED PROVINCES.

The glass industry of India is concentrated mainly in the United Provinces and of the average annual total production of glass goods estimated at Rs. 1.2 crores in the years immediately preceding the outbreak of the present war, the U. P. contributed about Rs. 1 crore worth of goods. The most important section of the glass industry in this Province is the manufacture of bangles in the small town of Firozabad. " So complete is the concentration of the bangle industry at Firozabad that practically no bangles other than the indigenous *desi* bangle of the cottage worker are made elsewhere in India."* The traditional art of the *shishgar* and his ability to cater for individual requirements has enabled him to oust powerful rivals in the bangle trade. In the other branches of the industry also, viz., the manufacture of sheet glass, hollow-ware, and fancy goods, this Province took the lead early and has maintained it ever since. From a paltry 6 in 1929, the number of glass factories under the scope of the Factories Act shot up to 49 in 1939, and still higher to 74 in 1942. There is reason to believe that during the past three years also several new factories have been established. A special feature of the industry is that since 1938 it has developed under the guidance of the Glass Technology Section of the Provincial Government. In a number of older factories, inefficient pot furnaces and directly-fired annealing chambers have been replaced by modern tank furnaces and continuous annealing lehrs. Moreover, the Glass Technology Section has materially helped the industry by supplying new formulæ for the proportion of constituent elements in the batch for the manufacture of glass. By adopting the suggestions of this section and

*E. Dixon, op. cit. P. 1.

also by exploiting the results of research work which is being done therein, the factories have been able to put on the market goods of improved quality, design and finish. The newer establishments are invariably equipped with tank furnaces, continuous annealing lehrs, and automatic bottle, jar and finishing machines. The Provincial Government have also helped in the improvement of working conditions, especially in the bangle-joining trade by providing at their own expense five model buildings containing non-draught ventilation arrangements, besides opening a Labour Welfare Centre in Firozabad.

Ad hoc surveys for the purposes of the present enquiry were conducted in Firozabad, Bahjoi and Balawali, three of the five main centres of the industry in the U. P. the other two being Allahabad and Benares. The industry from the standpoint of labour conditions falls broadly into two divisions, viz., (i) cottage shops, wherein the *shishgars* manufacture bangles and others carry on the ancillary processes of joining, cutting, painting, enamelling, etc., and (ii) factories which produce blocks, bangle spirals, hollow-ware and sheet-glass. It would, therefore, be convenient to narrate the conditions of labour in these sections separately.

I.—Glass Factories.

The reason why glass factories also should tend to converge near the older centre of the industry, viz., Firozabad seems to be the availability of a large number of workers steeped in the methods of glass manufacture. Of course, the fact that the U. P. and the Punjab would provide extensive markets for the manufactured goods must also have had a bearing on the decision of the manufacturers to choose places like Firozabad, Balawali and Bahjoi for the installation of plants.

A.—Employment.

Since the establishment of the first factories about 1918, as the table below will show, the industry had a steady development till 1939, when the number of factories was 49 and the number of employees 4,733. In 1941, the number of factories rose to 79 and the number of employees to 8,038. 1942 figures show some decline but in 1943 the employment went up again.

Table 3.

Number of Glass Factories and Workers employed therein (from 1929 onwards).

Year	No. of factories		No. of workers.	
	India	U. P.	India	U. P.
1929	17	6	2,318	1,308
1930	19	6	2,390	1,192
1931	32	16	3,488	1,725
1932	40	22	4,467	2,355
1933	42	24	5,005	2,372
1934	46	28	5,037	2,551
1935	55	35	6,031	3,186
1936	52	30	6,031	3,147
1937	60	34	7,156	3,734
1938	73	47	7,765	4,219
1939	74	49	8,934	4,738
1940	90	60	12,048	5,821
1941	116	79	16,703	8,038
1942	108	74	15,015	7,181
1943	..	..	18,328	7,753

As a result of the impetus given by the war to the industry, it has developed into one of the five or six premier industries of the Province. Besides providing employment to about 8,000 workmen, the factories in this Province have served as the recruiting ground for factories in Bengal, Bombay and the Punjab.

For the purposes of this enquiry, 27 factories in Firozabad, Balawali and Bahjoi were visited and the number of workers covered was 3,146. Of these only 6 factories employed, on an average, over 100 workers daily. Of the 3,146 workers, a considerable number were women and children though the proportion of these two categories would not be as high as it is in the cottage shops. Children are usually employed as moulders and gaugemen ; and women, for sorting cullet and packing the finished goods. About 75 per cent. of the workers are employed on time-rates and the rest on piece-rates. All workers are employed and paid directly by the factories, though the workers are recruited through paid agents. Skilled workers may have to be recruited sometimes from factories in other districts and for this purpose the usual method of sending out agents is adopted. In the case of unskilled workers, however, a *jagaiya* is employed by each factory to recruit them as and when necessary. It is also his job to get up early every morning and wake other workers living in the town proper ! Unskilled workers flock to the factory gates also and are recruited directly. Formerly, some of the bigger concerns used to advertise their requirements of technical personnel but the response to their advertisements was so poor that they gave up the practice.

Length of Service.—Statistical information regarding the length of service of operatives could be obtained only from the two leading concerns and is given below.

TABLE 4.

Length of Service of Operatives in the Ganga Glass Works Ltd., Balawali (November 1944).

Length of service in years.	No. of operatives.	Total employment.
0—1	315	43·2
1—5	290	39·8
5—10	49	6·7
Over 10	75	10·3
Total ..	729	100·0

TABLE 5.

Length of Service of the Operatives in the U. P. Glass Works, Ltd., Bahjoi.

Length of service in years.	No. of operatives.		Total employment.	
	Aug. 1939.	Apr. 1945.	Aug. 1939.	April 1945.
0—1	182	146	32·3	24
1—5	211	281	37·4	46·1
5—10	128	129	22·7	21·2
Over 10	43	53	7·6	8·7
Total	564	609	100·0	100·0

In the Ganga Glass Works, Balawali, only 17 per cent. of the total number of workers had put in over 5 years' service, and over 43 per cent. had worked for less than 12 months in that concern. In the U. P. Glass Works Ltd., Bahjoi, the position seems to have improved inasmuch as the percentage of workers with less than 1 year's continuous service fell from 32.3 in August 1939, to 24 in April 1945. The figures in both the tables point also to the existence of considerable turnover of labour.

It may be noted here that during war time most of the glass factories have been working intermittently due to shortage of coal supplies, and, on an average, it would seem that they work now-a-days only for 6 to 7 months in the year. The workers are not classified as permanent and temporary in any of the Firozabad factories. At Balawali and Bahjoi, however, there does exist such classification, and some extra privileges accrue to the permanent workers, particularly at the latter place. Permanent workers at Balawali are paid higher rates for the same or similar occupations than those paid to temporary ones, and as all employees who have put in 6 months' service in the concern are regarded as permanent, it would seem that some sort of a promotion is obtained by every fresh worker at the end of that period. In the Bahjoi factory, all workers who have put in one year's satisfactory service are, confirmed ; and the extra privileges which they become entitled to after confirmation are : (i) two days' extra wages in addition to the wages earned in the course of the month, (ii) a share in the profits of the concern which may give them a sum equivalent to about two months' wages, and (iii) title to 24 days' leave with pay in the year in lieu of (i) above. While there is no definite system of apprenticeship in any of the concerns, the practice is to recruit freshmen as unskilled workers and to give them opportunities to learn the skilled vocations. Those so inclined, avail of the opportunities and learn blowing within three or four years. There is also no system of a graded or time-scale promotion in any of the factories but the better organized among them review the cases of their employees periodically and grant promotions only on grounds of proved skill and efficiency.

Labour Turnover and Absenteeism.—In spite of the fact that glass factories in these centres were established over one quarter of a century ago, they have not been able to build up a stable labour force. Labour in these factories is even now a heterogeneous mixture of diverse elements, some of which are so highly migratory in character that figures for labour turnover often rise to 30 or even 40 per cent. per month. About 10 per cent. of the workers in the factories in Firozabad live in villages 6 to 8 miles away and come every day on bicycles to attend to work. They are primarily agriculturists and in the sowing and harvesting seasons, they just stay away others who, while they live in the town proper as long as there is no work at without, in most cases, giving any notice to their employers. There are home, leave the factories *en masse* when agricultural operations commence. Since the commencement of war, labour turnover has been further accelerated due to a number of factors which have already been stated in Chapter II. It seems that since 1939, the number of glass factories in India has increased by about 45 and at least one-third of these have been established in other Provinces, viz., Bengal, Bombay, and the Punjab. It was found in the course of investigations that a fair proportion of skilled or semi-skilled workers in these factories had been recruited through recruiting agents, from the three western districts of the U. P., viz., Agra, Bijnor and Moradabad. Obviously, therefore, inter-provincial migration is responsible for probably an appreciable

part of the labour turnover. This factor has had its repercussions in the three centres locally also. The defection of workers has forced the factories to try and get workers from the local factories on somewhat higher wages and this has caused a considerable turnover in the factories *inter se*. Moreover, there has been a migration of unskilled workers to the neighbouring areas for employment in military works, and also due to an uncertain and irregular supply of coal most of the factories have had intermittently to stop working. The average number of days for which they have been able to work in the course of the year has been in the neighbourhood of 200 during 1944. Some of the employers now doubt the desirability and necessity of training up persons who would not stick to their jobs later. The following table shows the extent of labour turnover in one of the Firozabad factories investigated. No figures are available for others.

TABLE 6.

Labour Turnover in a Firozabad Factory.

Month.	Average Daily employment.	No. of workers who left the concern.	Per cent.
January	66	10	15·15
February	89	41	46·06
March	67	5	7·46
April	The factory did not work.	All workers dismissed.	100·00
May	141	76	53·90
June	92	49	53·26
July	23	8	34·78
August	42	1	2·38
September	75	12	16·00
October	31	1	2·22
November	93	22	23·68
December	76	Nil	Nil

As for absenteeism, it appears that the figures are fairly high, ranging between 10 and 15 per cent. in most concerns. Glass factory labour is given to drink and after pay day, workers paint the town red and make merry for a day or two. Other contributory causes of absenteeism are sickness (mostly malaria which sometimes takes the form of an epidemic) and social functions.

Standing Orders.—Not even in the bigger concerns employing over 500 workers are there any " standing orders " and the relations between the employers and the employees are governed by tradition and verbal instructions. Nor is there a labour officer in any of the three centres. Generally the management looks to the grievances of the workers ; but if the trouble becomes acute, the intervention of Provincial Labour Officers is sought, whose arbitral award both the parties accept.

Involuntary Unemployment.—As has been already stated, due to an irregular supply of coal and raw materials, most of the factories have to stop work off and on. In one of the biggest centres of the industry, viz., Firozabad, the problem was so acute that a large number of factories were using wood fuel. Apart from the danger to agriculture from deforestation, the costs are also increased. The result is that only a few factories have been

able to work throughout the year. The average number of days worked by glass factories in the country would be between 150 and 180. This intermittent stoppage of work has serious repercussions on employment and average earnings of workers, particularly in places where alternative employment of any kind is not readily available. If, for instance, the Ganga Glass Works Ltd., at Balawali stops work for a week, all its 729 workers would have to sit idle and the wages which they get leave no surplus to enable the workers to provide for the rainy day.

B.—Wages and Earnings.

Factory workers in the Firozabad centre have organized a union—the Mazdoor Sabha, and in July 1939, the Union forced the employers to agree to certain minimum rates of wages to be paid to the enumerated categories of workers. The rates were subsequently revised in November 1943, and enforced with effect from the 1st of December 1943. The following table gives the rates of wages as fixed on the two occasions and shows also the percentage increase.

TABLE 7.

Rates of Wages as per Agreement between Mazdoor Sabha and Employers at Firozabad.

Occupation	1-8-1939.	1-12-1943.	% increase.
Tarwala	..	4 8 0 (Ordy. bangles)	80
	2 8 0	5 8 0 (Reshmi ,,)	120
Belanwala	1 2 0	1 12 0 (Ordy. bangles)	55·5
		2 12 0 (Reshmi ,,)	144·4
Muthowala	1 0 0	2 6 0	137·5
Lom maker	0 15 0	2 4 0	140
Lom carrier	0 7 6	1 6 0	193·3
Gulliwala	1 0 0	2 6 0	137·5
Kataiwala	0 15 0	2 4 0	140
Ginaiya	0 8 6	1 8 0	182·3
Astarwala	0 15 0	2 3 0	133·3
Pahalwala	0 15 0	2 4 0	140
Bubblowala	0 8 6	1 8 0	182·3
Blower	1 6 0	3 0 0	118·2
Women	0 5 0	0 14 0	180

In 1939, the average rates of wages paid were at par with the Mazdoor Sabha rates or even a little higher. The problem of labour shortage did not exist then and the employers were able to get the required number of

workers at the minimum rates. The following table shows the position in 1939 with regard to wages :

TABLE 8.

Average Rates of Wages in Glass Bangle Factories, Firozabad, 1939.

Occupation.	Mazdoor Sabha Rates.	Average Rate Paid.
Tarwala	2 8 0	2 8 0
Belanwala	1 2 0	1 2 0
Muthewala	1 0 0	1 2 0
Lom maker	0 15 0	1 2 0
Gulliwala	1 0 0	1 4 0
Kataiwala	0 15 0	1 0 0
Bubblewala	0 8 6	0 9 0
Bubblemaker	0 12 0	0 12 0
Bubblecooler	0 7 6	0 8 0
Lom carrier	0 7 6	0 8 0
Ginaiya	0 8 6	0 9 0
Asturwala	0 15 0	0 15 0
Pahalwala	0 15 0	0 15 0
Women	0 5 0	0 5 0

Shortage of labour was felt first about the middle of 1941 and since then the problem has assumed immensely increased proportions. The result was that wages increased considerably. In 1943, the Mazdoor Sabha forced a revision. It was found in the course of our survey that the wages paid now are appreciably above those demanded by the Sabha. The following table illustrates the position.

TABLE 9.

Average Rates of ... es in Glass Bangle and Hollow-ware Factories, Firozabad, 1945.

Occupation	Mazdoor Sabha Rates.	Average Rates Paid.							
		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Tarawala	Ordinary 4 8 0	6 0 0	6 0 0	5 8 0	7 0 0	7 0 0	6 0 0	7 0 0	7 0 0
	Reshmi 5 8 0	9 8 0	9 0 0	9 0 0	9 0 0	10 0 0	9 0 0	9 8 0	9 8 0
Belanwala	Ordinary 1 12 0	2 0 0	2 8 0	2 8 0	2 8 0	2 10 0	2 8 0	2 4 0	2 8 0
	Reshmi 2 12 0	3 0 0	3 0 0	3 4 0	3 4 0	3 12 0	3 8 0	3 12 0	3 8 0
Muthewala	2 6 0	3 0 0	2 8 0	2 6 0	2 9 0	2 14 0	2 8 0	3 8 0	4 8 0
Gulliwala	2 6 0	3 0 0	2 6 0	2 6 0	2 8 0	3 0 0	2 6 0	3 4 0	3 8 0
Kataiwala	2 4 0	2 4 0	2 4 0	..	..	2 8 0	2 4 0	2 10 0	2 12 0
Ginaiya	1 8 0	1 10 0	1 8 0	..	..	1 10 0	1 8 0	1 10 0	1 10 0
Lom maker	2 4 0	3 0 0	..	..	2 6 0	2 8 0	2 4 0	2 12 0	2 8 0
Lom Carrier	1 6 0	..	1 6 0	1 6 0	1 7 0	1 8 0	1 6 0	1 6 0	1 8 0
Astarwala	2 3 0	..	2 4 0	2 3 0	..	..	..	..	2 8 0
Pahalwala	2 4 0	..	2 4 0	2 4 0	2 6 0	..	2 4 0	..	2 8 0
Bubblewala	1 8 0	..	1 8 0	2 0 0	1 9 0	..	1 10 0	1 12 0	1 12 0
Women	0 14 0	1 0 0	1 14 0	..	1 0 0	0 14 0	1 0 0	1 0 0	1 1 0

In the factories manufacturing blownware, the basic wages seem to have gone up by about 50 per cent., where an additional dearness allowance is paid, and by 100 to 200 per cent. where only consolidated wages are paid. In a leading blownware factory, the average basic wages were found to have gone up by about 40 per cent. since 1939. Thus the average basic wages of blowers in pre-war days were Rs. 33 per month. In 1945, the corresponding figure was Rs. 45-11-6, showing an increase of 38.5 per cent. The highest percentage increase was found in the wages of the carpenter. In 1939 his average basic wages were Rs. 13 per month but in 1939 they had gone up to Rs. 29 per month, the increase being 123 per cent. The wages of helpers show the least percentage increase—30.7 per cent. The increase in gross earnings during the same period ranges from 79.6 per cent. (in the case of grinders, cutters, packers and wrappers) to 238.4 per cent. (in the case of carpenters). Details in this regard are given in Appendix I. But the following table summarises the position.

TABLE 10.

Average Basic Wages in a Leading Glass Factory.

Occupation.	1939 Average Basic Wages.	1945 Average Basic Wages.	Increase %
	Rs. A. P.	Rs. A. P.	
Blowers	33 0 0	45 11 6	38·5
Helpers	22 0 0	28 12 0	30·7
Bubble-makers	13 6 9	17 12 4	32·4
Carries and Moulders	8 10 0	13 12 3	59·5
Mixers	12 5 4	16 4 0	31·7
Firemen	18 4 7	27 2 0	48·3
Lehr Unloaders	11 8 0	15 11 8	36·7
Coalmen	9 8 0	14 12 0	55·2
Cutters, Grinders, Packers, Wrappers	9 14 5	14 5 0	44·9
Carpenters	13 0 0	29 0 0	123
Potters	24 4 0	40 0 0	641·9

In Appendices II and III are given the wages and earnings of workers in a Sheet Glass Factory paid in 1939, 1942, and 1945. Wages in 1942 show only a slight increase over those in 1939 and in a few cases they indicate a fall. This latter is explained by the fact that a large number of new workers were recruited during 1941, and, therefore, the lower rates paid them brought down the average wage level. By 1945, however, the wage level had gone up 100 to 250 per cent. as compared to the 1939 level.

Sheet cutters are employed on piece rates. The following table gives the rates paid in 1939, 1942, and 1945.

TABLE 11.

Piece Rates for Sheet Cutters.

Date	Area of the Piece.	Thickness of the sheet	Rate	D.A.
			Rs. A. P.	
August 1939	100 sq. ft.	1/16 inch	0 2 3	Nil
		3/32 „	0 2 6	Nil
August 1942	Do.	1/16 „	0 2 3	25% of
		3/32 „	0 2 6	the wages.
April 1945	Do.	1/16 „	0 5 0	Nil
		3/32 „	0 5 3	Nil

The following table gives an idea of the increase in the average basic wages paid to the important categories of workers.

TABLE 12.

Average basic wages paid in a Sheet Glass Factory.

Occupation.	Average Basic Wages 1939	Average Basic Wages 1945	Increase %
Sheet Glass Section—			
Mixers	0 4 7	0 10 1	120
Firemen	0 5 7	0 14 0	154·5
Helpers	0 4 10	0 11 7½	140·5
Bottom Machinists	0 5 10	0 11 6	97·1
Top Machinists	0 6 9	0 11 5	73·4
Sheet Cutters	1 1 7	2 3 10½	104
Sheet Carriers	0 4 3½	0 9 8½	126·2
Carpenters	0 9 8	2 12 5	359
Packers	0 6 0	0 11 7	93
Wrappers	0 3 3	0 8 2	151
Porters	0 5 1½	0 11 1½	117
Boiler—			
Firemen	0 6 0	0 11 9	95·8
Cleaners	0 4 0	0 8 3	106·2
Blacksmithy—			
Blacksmith	30 0 0	102 0 0	240
Hammerman	0 6 0	0 8 9	45·8
Workshop—			
Turners	42 0 0	1 12 0 p.d.	25·8
Fitters	30 0 0	1 4 0	25
Electrician	50 0 0	4 5 3 p.d.	160

Dearness Allowance and Bonus.—Only in the two big factories surveyed is dearness allowance paid. In the Ganga Glass Works, Ltd., Balawali, a dearness allowance of Rs. 12 p.m. to those getting Rs. 16 or less, and Rs. 10 p.m. to those getting more than Rs. 16 was paid till the end of 1944. In 1944 the Dearness Allowance was revised, and a flat rate of Rs. 15 p.m. was sanctioned for all the workers getting below Rs. 100 p.m. Bonus equivalent to one month's salary is also given to all permanent workers twice a year. The U. P. Glass Works granted a dearness allowance to their employees on the 1st January 1942, at 3 annas in the rupee. This, as the following figures will show, has since been gradually increased to 10 annas in the rupee.

	D.A.	
1st January 1942	0 3 0	in the Re·
1st August 1942	0 4 0	,,
1st January 1943	0 6 0	,,
1st March 1943	0 8 0	,,
1st May 1943	0 10 0	,,

In addition to the Dearness Allowance, the concern initiated a fortnightly bonus scheme on the 1st of January 1942. After 14 days of work, a worker was given title to one day's extra wages. On the 1st March, 1945, to ensure better attendance a daily attendance bonus was also sanctioned. For each day's attendance, the worker was paid an anna extra.

Miscellaneous.—The smaller glass factories make no payment for overtime work as a rule, for generally they do not adhere strictly to the declared hours of work. In the bigger establishments overtime is paid for at the rates prescribed in the Factories Act. Fines are imposed only in one concern where a small fines fund has accumulated. The proceeds are used for providing medicines to workers. In a large number of cases fines are refunded if the worker shows improved work and behaviour. The wage period in most of the concerns is one month, wages being paid on the 7th of the month following. In some factories it may be a fortnight, payments being made on the 3rd and 18th of the month. Holidays with pay are granted in only three concerns and there too the piece-rate workers have to be content with an unpaid one. Only in one concern is the paid holiday given every week. In others, it is given once every fortnight. It may be noted, however, that it is almost impossible to find out from the records whether a worker did get a holiday after 14 days' work or not. It was alleged that as in almost all the concerns these holidays were not paid for, the worker was tempted to work on the " holiday " under an assumed name.

C.—Working Conditions.

Hours of Work.—It was found that due to shortage of coal an overwhelmingly large number of factories were burning wood. The result, therefore, is that only a few of them are now working two shifts and others only one shift a day. In winter, the shift hours are 9 A.M. to 5 P.M., and 5 P.M. to 1 A.M. In summer the timings are changed, as days are very hot and it would not be possible to work in a temperature of 120°. Shifts in the summer months, therefore, are (i) from 3 A.M. to 11 A.M., and (ii) 7 P.M., to 3 A.M. without any rest interval. Hours of work for those who do not have to work in the blowing shed are from 9 A.M. to 7 P.M., with an hour's rest between 1 and 2 P.M. Firemen work on 8 hour shifts. There are three shifts for firemen, in all the factories. Some of the glass bangle cutting factories work only in the day throughout the year. Working hours in such factories are 8 A.M. to 7 P.M. with a two-hour rest interval from 12 noon to 2 P.M. Others work for one fortnight in the day (7.30 A.M. to 5.30 P.M. with an hour's rest interval) and at night in the next (9 A.M. to 5 A.M.). No overlapping shifts are worked in any of the concerns.

Ventilation, lighting, etc.—As the blowing sheds are open on all sides, they are well ventilated and lighted. Mixing rooms in almost all factories are very poorly ventilated and are full of silica dust all the time. In the Ganga Glass Works, Balawali, fresh air is blown into the shed from one side and the hot air allowed to escape from the other. Most of the glass factories are lighted electrically. The blowing shed in all the factories appeared to be congested. Arrangements for drinking water were found to be adequate in the bigger establishments, but in the smaller ones drinking water was stored in dirty earthen pitchers. In the Ganga Glass Works, Balawali and the U.P. Glass Works, Bahjoi, water is pumped into an overhead reservoir by an electric motor and then distributed through pipes. It was stated that the well and the reservoir were disinfected occasionally. Latrines and Urinals, where provided, are not kept clean. It was stated everywhere that workers preferred to go out into the open. All the glass factories have one or two big tank or pot furnaces and annealing chambers. Blowing sheds are parti-

cularly hot and in summer months conditions are awful. When the atmospheric temperature is 115° or so outside, it is in the neighbourhood of 125° inside the factories. Inspite of this, there is no protection against heat. In the sheet glass factory at Bahjoi, besides a very big tank furnace there are half-a-dozen burners, and it would be no exaggeration to say that if one were to stand even for half an hour near them, one would faint. Cases are not uncommon when workers do actually faint while working at the bottom machine. It is really deplorable that no shelters have been built in glass factories except in one. As has been said earlier, such shelters are particularly necessary in these factories. In only one factory, viz., the Ganga Glass Works, Ltd., Balawali, has a shelter been built. This shelter, however, is easily one of the best seen in the course of our investigations. It consists of a big hall 82 ft. × 58 ft. with a verandah on two sides. The roof is pretty high. It is kept clean and is white-washed twice a year.

D.—Welfare Activities.

Apart from the obligatory welfare activities, there are no such activities worth the name in any of the concerns, and actually attempts, are made to circumvent even the provisions of the Factories Act. For example, in one factory a line of urinals and latrines had been built in the far corner of the compound but access to them was barred by heaps of iron scrap and bricks! Sanitary arrangements in all the glass bangle factories in Firozabad are conspicuous by their absence. In the workmen's rented quarters there are no washing and bathing facilities, and men and women and children all flock to the nearest tap. Children are seen easing themselves in the drains. The localities in which workers live stink awfully. Inside the factories, too, conditions are deplorable. The small factories usually ignore the provisions of the Factories Act, and urinals and latrines provided in the bigger ones are invariably dirty. In the three biggest factories surveyed, viz., the Ganga Glass Works at Balawali, the U.P. Glass Works at Bahjoi, and Jain Glass Works at Harangau, sanitary arrangements are somewhat better. There are a fairly large number of taps provided in each of these concerns and workers are allowed to wash and bathe under them. No special arrangements are made anywhere for the supply of cool water and tap water or water stored in earthen pitchers is considered enough, although this is just the sort of industry in which such arrangements would be gratefully accepted by workers.

As for medical facilities, the less said the better. The smaller establishments do not have proper equipment for even rendering first aid. In Firozabad no concern has a dispensary. In the U. P. Glass Works, Ltd., Bahjoi, one homœopath has been employed. In a factory where most of the cases are of cuts and burns one fails to see the utility of this system of treatment. In the Jain Glass Works at Harangau and the Ganga Glass Works at Balawali, there are allopathic dispensaries and on an average 50 cases, mostly of malaria, cuts and burns are treated every day in each. These dispensaries are in the charge of qualified compounders and a doctor makes only weekly visits! It was claimed by all the concerns that workers suffered from no occupational disease. The representatives of workers, however, alleged that cases of silicosis had been detected and that cases of bronchitis, myopia and other lung and eye diseases were common. In the absence of a periodical medical examination of workers, the incidence of occupational diseases could not be gauged properly. It is however, not open to doubt that most of the blowers suffer from chronic bronchitis and asthma, and that in all probability a number of mixers have contracted silicosis.

No canteens or creches have been provided in any of the concerns though the Ganga Glass Works at Balawali have rented out 4 rooms within their premises to shopkeepers. There are two grain shops, one shoe-maker's shop and a tailor's shop. These are private shops and the profits that accrue go to the shopkeepers. Commodities are sold at controlled rates. Workers have both cash and credit transactions. The U. P. Glass Works, Ltd., at Bahjoi occasionally supply free *dal* to workers. The Ganga Glass Works at Balawali maintains an upper primary school for the benefit of the children of the workers though admission of others is not barred.. In Firozabad no concern has made any arrangements for the education either for adult workers or their children. Reference may be made here to the activities of the U. P. Government Welfare Centre at Firozabad which organises evening sports and night classes. There is a small library also. It was, however, found that workers discontinued reading after acquiring a smattering of reading and writing and soon relapsed into illiteracy.

E.—Housing.

Housing accommodation is provided by the U. P. Glass Works, Ltd., Bahjoi. Out of a total strength of 613 workers, however, only 84 workers and their families are housed in the factory quarters. Some of the quarters are allotted to the clerical and superior staff. In this way the proportion of workers housed in factory quarters is only 7 per cent. of the total. The rentals charged vary from two annas to eight annas per mensem for the quarters meant specifically for ordinary coolies. The rentals of more spacious quarters which are allotted to the members of the superior staff, such as Engineers, Chemists, etc., vary from Rs. 1-8-0 to Rs. 2-0-0. Some of them live in workers' quarters also. Generally speaking, the rentals are charged at the rate of 4 annas for each room. Thus, a quarter, having three rooms 18 ft. × 12 ft. × 15 ft., one store-room, one kitchen room, a courtyard and a verandah in the lower storey and a room 8 ft. × 8 ft. × 10 ft. in the upper one is charged at Rs. 1-8-0 per month. The quarters of Rs. 2 per month have two rooms 12 ft.× 12 ft.× 20 ft. and two 8 ft.× 8 ft. ×10 ft. The cheapest quarter, i.e., the 4 anna type has one room 10 ft.× 10 ft. × 12 ft. and a courtyard 6 ft.× 10 ft. The quarters are *pucca* with brick-laid roofs and flooring. The quarters charged at less than as. 8 per mensem have no separate water tap or latrine. In the better quarters, latrines and water taps are provided. There is no congestion in the superior quarters, but 4 anna and 8 anna quarters house on an average a family consisting of 4 to 5 persons. There is no sub-letting in any of the factory quarters. Sanitation is poor and water supply meagre or practically non-existent in the cheaper quarters. There is only one water tap for 15 or 20 quarters of one particular type. There is a narrow drain outside these quarters, which remains usually dirty. The condition of sanitation and water supply is slightly better in the quarters charged at 8 annas or above per month. They have a separate latrine and hand pump each attached to them and are also neater and cleaner.

In the Ganga Glass Works, Ltd., at Balawali, housing facilities have been provided to 250 workers—about 1|3rd of the total labour force. Here no rents are charged by the employers for the housing accommodation provided. The table below will give details of housing provided by the employer as regards types of houses, showing habitable and subsidiary rooms, types of walls, ventilation, roofing, flooring and water supply.

TABLE 13.

Housing Accommodation for Workers in the Balawali Glass Works Limited.

Type	Total No. of type.	No. of rooms in each house.	Dimensions L×B×H	Courtyard	Verandah	Latrine (type)	Bath	Others	Walls (type)	Ventilation (details)	Roofing (type)	Flooring (type)	Water-supply
I	30	2	10′×12′ × 10′	25′ × 10′	25′ × 7′	Separate	Separate	1 store-room & 1 kitchen.	*Pucca*	Windows 2′ × 2½′ × 2 ventilators	23 with tiled roof 7 with tinned roof.	23 *pucca* 7 *kacha*	23 separate, 7 common.
II	13	2	Do.	Do.	No	Do.	No	No	*Kacha*	1 window	6 with tin & 7 with tile	*kacha*	Common.
III	52	1	Do.	1 long Courtyard common to 52 qrs.	No	Open	No	No	Do.	Do.	39 with tin & 13 with tiled roof.	Do.	Do.
IV	11	1	Do.	Open	Verandah 25′×7′ for 2 Qrs.	No	No	No	Do.	Do.	Tin roof	4 *pucca* all others *kacha*	Do.
V	27	1	Do.	Open	No	No	No	No	Do	Do.	Tiled	*Kacha*	Do.
VI	48	1	Do.	Open	1 verandah 25′×7′ for 2 Qrs.	No	No	No	*Pucca*	1 window & 2 Ventilators	..	*Pucca*	Do.
VII	14	1	Do.	Open	25′×7′	No	No	No	Do.	Do.	..	*Pucca*	Do.
VIII	14	1	Do.	Open	No	No	No	No	Do.	One window	Tiled	*Pucca*	Do.

Total number of quarters .. .. = 209

Total number of workers (with or without families) housed .. .. = 250

These are the common Indian types of houses. There is no congestion. Most of the workers live in single-room tenements and do not usually bring their families to the town. No sub-letting is permissible. With reference to sanitation and water supply, it was found that water taps and open latrines had been provided. About 2|3rds of the workers who are recruited from the surrounding villages maintain their contact with the fields and go back to their own homes after their day's work in the factory.

In the Firozabad centre, one of the 10 cutting factories visited provided housing for its workers. Details of housing provided in some others are given below.

TABLE 14

Housing Accommodation.

Factory	Whether housing provided.	Detailed remarks.
1	Yes ..	Dirty and scanty accommodation. There were two rooms (10′ × 4½′ × 6′) and (12′ × 8′ × 10′) and an open place (15′ × 6′) where the employers said they housed their workers. Thus, in one big hall 10 to 12 men were supposed to live.
2	Yes ..	Four rooms (10′ × 8′ × 8′) and 4 rooms (8′ × 6′ × 8′) meant to house 8 workers. The rooms were rather congested and it was dark even during the day.
3	Yes ..	6 rooms (10′ × 8′ × 10′) for which rental is charged at Rs. 2 per room per mensem. The *bhisti* (water carrier) and the firemen are exempted from payment of rentals. In these six rooms, 9 workers were found living—3 each in 2 rooms and 1 each in the other 3 rooms. One room was occupied.
4	Yes, but only 3 workers.	Three quarters (8′ × 10′ × 10′) rented by the employer on Rs. 6 per month and supplied free of charge to workers. There are two windows, brick-laid floor, one verandah (7′ × 18′ × 10′), and a separate courtyard in each of these.
5	Not to all workers, but only to firemen and helpers.	There are 10 rooms (12′ × 10′ × 8′) with *pucca* walls and *pucca* floor in some rooms and *kacha* in others and a well within the premises. There is good arrangement for washing and bathing. No rents are charged from the labourers for these quarters. The employees supply wood, fuel and light free of cost. Generally speaking from two to three men live in a quarter on an average. Thus in the 10 quarters about 25 to 30 labourers are housed.

The Jain Glass Works at Harangau has provided 22 quarters to their employees. These quarters have one room (10 ft. × 10 ft. × 10 ft.) a courtyard (12 ft. × 10 ft.) outside the room, and at the right extreme corner of the courtyard a small walled enclosure 3 ft. square to serve the purpose of a urinal or latrine. They are all single-room tenements. Only 4 workers were living in these quarters. Each worker had 2 or 3 rooms at his disposal. The remaining quarters were unoccupied. Workers recruited from the villages nearby preferred to go back to their homes.

F.—Trade Unions.

Firozabad labour has formed a Trade Union called the Mazdoor Sabha. The strength of the Sabha is about 2,000. Every member is obliged to subscribe one day's wages annually to the Sabha Fund. The Union has made considerable efforts to keep the wage level tacked on to the cost of living index. It was as early as 1939 that the Sabha organised a strike and succeeded in forcing up the wage level. An agreement between the workers and the employers provided for the payment of minimum rates for each enumerated occupation. The agreement had a rather limited coverage, as cottage workers were completely left out of its purview. The employers collectively or individually made no efforts to evade the agreement. The new wage rates were enforced from the 1st August, 1939 and soon thereafter the war broke out. A large number of skilled workers left Firozabad for other centres of the industry, and shortage of labour caused a

small rise in wages. In 1942, wages rose further but lagged considerably behind the rising cost of living. In 1943, the Mazdoor Sabha rates were raised. Details in this regard have been given earlier. In addition to the Mazdoor Sabha, there are two Coral Pipe Cutters' Associations. Recently one of the Coral Pipe Cutters' Associations organised a strike and obtained an increase in the piece rates for cutting. The Mazdoor Sabha helps its members in procuring food grains and other basic commodities.

G.—Indebtedness.

Firozabad workers are all indebted, of course, and to varying extents. Given to vices like gambling and drinking, they have often either to ask their employers for advances or to borrow from moneylenders. In the former case they do not have to pay interest, but in the latter interest is charged and the rates, usually, are in the neighbourhood of 50 per cent. In some cases, they may be as high as 300 per cent. Although factory owners charge no interest directly, they are able to get overtime and domestic work out of the workers without making any payments. The indebted worker feels so obliged to his employer that he gladly works extra for nothing. Most of the workers are indebted for petty sums though some of them owe Rs. 400 and more. The money lenders compound interest half yearly by adding the unpaid interest to the capital. In a small town like Firozabad there are two cinema houses which are always packed to capacity. It was stated that the proprietory of these cinema houses were themselves lending money to workers ! Other causes of indebtedness are sickness, domestic needs and litigation. Most of the workers have patches of land also and before the passage of the U. P. Tenancy Act, cases of litigation were frequent. Now, however, conditions have improved, but only in this regard. Other evils continue unabated, and liquor shops, cinema houses and roulettes do brisk business.

H.—The Existing Legislation and its enforcement.

The number of glass factories under the scope of the Factories Act was 68 in 1942, and 75 in 1943. The Government of the Province under Notification No. 1389|XVIII-516-38, dated the 22nd May 1940, declared *inter alia* glass bangle factories employing 10 or more workers *and using power*, to be " factories " for purposes of the Factories Act with the exception of Sections 15, 16, 33 (1) and 33 (2). The Act is not made applicable to the cottage workshops, although such a step would have been extremely desirable, and also feasible in view of Section 5 of the Act. As will be shown later in a separate section on cottage shops, working conditions in them are most deplorable. Children of tender age work for long hours in the most filthy atmosphere imaginable. Even the Employment of Children Act is not applicable to these shops.

The Factories Act itself does not apply in its entirety to the glass factories for under Section 43 (d) they have been exempted from the Provisions of the Sections 34 (weekly hours), 35 (weekly holidays), 36 (daily hours) 37 intervals for rest), and 38 (spreadover), or any of them. Almost all of them have been exempted from the operation of Section 36 of the Factories Act. The condition attached to such grant is that a worker must be given 24 hours holiday after not more than 14 days' continuous work. It was found in the course of our survey that this attached condition was being ignored in many cases. It was also found that the special provisions for adolescents and children contained in Chapter V of the Factories Act were being observed entirely in the breach. Section 50 prohibits the employment of children below 12 years of age, but even in the regulated factories children of 8 to 10 years were seen working. Under Section 51, the employment of children between 12 and 15 years of age as " children " and of adolescents between 15 and 17 years as " adults " is allowed only if a certificate of fitness had been obtained from

a qualified doctor in respect of such persons. In none of the concerns were any young workers in possession of such certificates. The classification of adolescents as adults or children is very important in view of the restrictions placed on the hours of work for children. Section 53 (2) of the Act states : " An adolescent who has not been granted a certificate of fitness to work in a factory as an adult under sub-section (2) of Section 52, shall, notwithstanding his age, be deemed to be a child for the purposes of this Act ". Section 54 of the Act limits children's hours of work to 5 and spreadover to 7½. This is easily one of the most commonly disregarded provisions of the Act. It is specially provided in sub-section (4) of Section 54 that the provisions of Section 35 of the Act shall apply to child workers also but that *no exemption from the provisions of that Section may be granted in respect of any child.* This specific direction is particularly important in this context as proprietors of glass factories seem to be completely oblivious of the fact that exemption granted from Section 35 of the Factories Act is in respect *only* of the adults. Among other provisions of the Act frequently disregarded are those in respect of cleanliness, ventilation, cooling, overcrowding, water supply latrines and urinals. The U. P. Government under Rule 23 of the Rules made under the Factories Act, require all regulated establishments to maintain proper first-aid equipment and also to employ a certified first aider. This rule also is not being observed in most of the factories.

As for the enforcement of the Workmen's Compensation Act, the less said the better. The provision in Section 3 (a) of the Act for a waiting period of one week hits the glass factory worker hardest. Most of the accidents caused are not sufficiently serious to disable a worker for more than a week. A cut in the hand or a burn in the arm gets cured within 5 or 6 days in most cases. The incidence of such cuts and burns is large in all the factories with the result that no injured workers get anything for the periods of disability which recur frequently. Even in the more serious cases wherein the worker becomes entitled to compensation under the Act every attempt is made to square up matters as soon as possible. The workers' preference for ready money makes such a deal possible and easy.

II.—Firozabad Cottage Shops.

The bangle industry of Firozabad is decentralised and except for the manufacture of glass spirals and coral pipes all further processes are carried on in cottage shops employing 5 to 35 persons each, though using no power. It may be better to trace the course of glass spirals and coral pipes as they go through the various processes and are finally placed on the market for sale. It is not necessary to re-state here the method of manufacturing glass spirals. The spirals are cut in the glass bangle factory itself but the open ends of the rings are joined in what are known as joining shops. Joined bangles are taken to another set of shops which have specialised only in cutting the edges by grinding the bangles on rotating wheels. The next step is to get the bangles painted and enamelled. Mostly this is done in the selling shops themselves where children of 6 to 8 years are employed along with a few adults on piece rates. The unit is one *toda* which contains 288 bangles and the rates depend upon the pattern to be painted. The coral pipes also take the same route except for a brief loop. They are sent to the glass bangle cutting factories and shops. Almost every shop has its own way of cutting the bangles, and the method is kept a closely guarded secret. While some follow the scratching method, using bunsen burners to soften the scratched parts, others have invented special types of saw wheels which cut the pipe into bangles straightway. The other processes are the same as those in the case of glass

rings. Among the final processes besides painting and enamelling is the setting of the facets.

A.—Employment.

It is estimated that the bangle industry of Firozabad provides employment to about 10,000 workers out of which at least 6,000 work in the cottage shops. No accurate figures can be given in this regard because no records of any kind are maintained as far as the cottage shops are concerned. A very large proportion of these workers are children—35 per cent. would be a somewhat conservative estimate. Among the workers employed in the *bhattas* of *shishgars* are *tarwalas, kataiyas, juraiyas, ginaiyas* and *jhukaiyas*. The function of the *jhukaiya* is to stoke the furnace. In Chapter II the functions of some of others have been described already. In the glass bangle cutting shops, the only type of workers employed are known as 'cutters'. Most of them are salaried workers. In the joining shops, *pankhewalas, sadhaiyas* and *juraiyas* are employed. *Pankhewalas* work the bellows, *sadhaiyas* heat the rings and put the two ends together by giving a slight twist, and the *juraiyas* fuse the two ends together with the help of a small blow pipe and burner. A very large proportion of workers employed as *kataiyas, sadhaiyas, juraiyas* and *ginaiyas* are small children. Women are employed only for washing the bangles but often this also is done by children. The employment of children in these shops, it may be pointed out, is not illegal. They are covered by no law whatever, not even the Employment of Children Act. The justification of the employment of children of tender ages is sought in the usual "apprenticeship" argument. The children, it is claimed, must start early to be skilful later on in the better vocations. The plausibility of the argument is more apparent than real for the child who starts at 5 or 6 may not live even up to the middle age! The scale on which children are employed in this industry finds a parallel only in the mica manufacturing and bidi making industries but it is much more objectionable here than in the other two. The cheerful faces of children employed in the mica factories redeem the situation immensely. The position is entirely different in the case of the glass industry where children look emaciated, anæmic, myopic and gloomy. One cannot expect things to be otherwise when children work for long hours in the most deplorable conditions.

In the absence of records, the extent of turnover and absenteeism among the workers in the shops could not be found out. The shop-keepers and *jurawalas*, however, did not complain of turnover. As there is considerable personal contact between the employer and the employee in these small establishments, the evil is discouraged. Absenteeism was reported to be rampant among the workers mostly due to drink but often due to sickness also. And while nothing definite can be said about the length of service of operatives, it was found that a large number of adults questioned on the point had put in over 5 years of service. There is, of course, no security of tenure but workers are dismissed more often on grounds of personal petty feuds than of laxity in work. As for the mode of recruitment, smaller establishments prefer to employ, as far as possible, their own relations. This is more true of the *shishgars* and of the cutting shops. For the skilled occupations, workers are personally approached either by the cottager himself or by his agent.

B.—Wages and Earnings.

The wage level here, relatively speaking, cannot be regarded as low. Children are earning from annas 12 to Rs. 1-8-0 per day, while the skilled adult workers from Rs. 3 to Rs. 10 per day. Since 1939 the general wage level has gone up by about 200 per cent. The employees of *shishgars* are usually time-rate workers except the *juraiya* who works on piece rate. The following

table gives recent changes in the average daily earnings of workers employed in *bhattas* :—

TABLE 15.

Average daily earnings of workers employed in bhattas.

Occupation.	Daily Earnings. 1939	Daily Earnings. 1945	Increase %
	Rs. A. P.	Rs. A. P.	
Tarwala	2 8 0	9 0 0	300
Belaiya	1 2 0	3 0 0	166·7
Kataiya	0 8 0	1 6 0	175
Ginaiya	0 7 0	1 2 0	157
Juraiya	0 8 0	1 8 0	200
Jhukaiya	0 6 0	1 2 0	200

In the coral-pipe cutting shops or *addas,* workers are employed on monthly salaries but the salaries are directly related to the output of the workers. Usually a cutter is paid Rs. 10 p.m. for every dozen pipes cut per day. Thus if a worker cuts 4 dozen pipes per day, his monthly salary would be fixed at Rs. 40 p.m. It is, of course, not necessary for the worker to do 4 dozen pipes every day. He has to maintain the average over the period of one month. *Jurai* work is done on contract basis. The *Juraiwala* gets the bangles from the factory owners on contract and gets the work done in his shops. The rate for *jurai* work, at present, lies between Rs. 22 and Rs. 27 per 100 *todas.* If, however, kerosene oil is supplied by the factory a deduction for the cost of kerosene oil tins is made. The controlled rate of one tin of oil is Rs. 5-6-0, but it was alleged by some *juraiwalas* that they had often to pay Rs. 6-8-0 per tin. As the blackmarket rates were considerably higher, they felt obliged to the factory owners for charging only a small premium. The *juraiwala* in his turn employs *pankhewalas* on Re. 1 or 1-4-0 per day and *sadhaiyas* and *juraiyas* on piece rates. The average daily earnings of the latter two categories of workers are Rs. 1-4-0 and 1-8-0 per day respectively. A large number of the *juraiyas* are children earning Rs. 1-8-0 per day, but where adults are employed they are able to earn more as their production is higher. In the painting and enamelling, shops also, a large number of children are employed. They are paid the same rates as are paid to adults for the same work but the average daily earnings of children are about as. 12 per day, while those of the adults are about Rs. 2 per day. It may, however, be pointed out here that for painting there are no standard rates. The skill of the individual workers determines his wages, as is gauged by his capacity to put fresh designs on the market which are generally acceptable.

While no deductions are made or fines imposed, it was found that during the so called apprenticeship period which may extend to several months, children are paid no wages whatever. The practice is so widespread that no one ever takes notice of the fact. The period of wage payment may be a week, fortnight or month. No complaints were made about the delay in the payment

of wages. Sundays are usually observed as closed days in the *bhattas* and cutting shops, but the polishing and enamelling shops work even on Sundays. No daily wage earner is granted paid holidays.

C.—Working Conditions.

In the *bhattas* work is started rather early, at 5 A.M., and is continued up to 12 noon when workers break for an hour's recess. After resumption at 1 P.M., work is continued till 4-30 P.M. On an average, all workers work for 10 to 11 hours per day. The cutting shops commence work at 9 A.M. and finish after dusk, at about 7 P.M. Briefly, it may be stated that every *shishgar* or shop-owner has his own programme of work, and the hours of work, therefore, have neither been standardised nor regularised. As for the working conditions, attention has already been drawn to some aspects of the problem. It is impossible to describe sufficiently and accurately the wretchedness of the conditions in which labourers work. Distinction has to be made between conditions in summer and winter. In the former season, conditions become intolerable. In the *bhattas* sparingly clothed men, drenched with perspiration, work for the whole day. In the cutting shops, also, conditions were similar. Cases of fainting occur quite often. But it is in the joining shops where one finds the most filthy atmosphere. In most of the shops kerosene lamps are used for joining purposes. The atmosphere is stuffed with fumes of carbon oxides. In order to prevent a direct draught of air which makes the flame unsteady, the shop-keepers bar the entry of fresh air and thus prevent the escape of the fumes also. Most of the shops consist of just one most ill-ventilated and ill-lighted room. Things are much better in the polishing, painting and enamelling shops. There are no burners in them to stuff the air. The general health of the workers in the joining shops, specially of young children, was alarmingly poor. Most of them suffer from rickets and eye diseases. It is a sad paradox of the situation that while the Employment of Children (Amendment) Act, 1939 covers 9 industries, wherein working conditions are at par, or in cases even better, cottage shops in the glass industry have been left out of its purview.

D.—Miscellaneous.

There are no sanitary arrangements in or about the shops, and the nearest drain is used as lavatory. There are no arrangements for washing and bathing either. In summer drinking water is stored in ancient earthen pitchers which are seldom left clean. In case of sickness the only medical aid available in the town is that offered in the Government dispensary. The employers have made no arrangements whatsoever in this regard nor for the education of adult workers or children. Workers stay in their own or hired houses but sometimes the shop-owner or the *shishgar* provides accommodation to the employees,—half a dozen or so at nominal rents. In a couple of cases it was found that they run common messes also. The existence of indebtedness among workers is admitted on all hands though its extent has not been determined. Most of the workers owe petty sums. The interest charged is about 50 per cent. in most of the cases though there is no ceiling to this.

CHAPTER IV.—BENGAL.

For the purpose of the *ad hoc* survey in Bengal 17 out of 21 registered factories were covered. The number selected, comprising about 80 per cent. of the total number of glass factories in Bengal, can be considered a sufficiently large sample to yield representative data. The information collected from the selected factories may, therefore, be treated as giving a more or less complete picture of the industry in Bengal. Of the seventeen factories, ten were established since the war broke out, while the oldest one dates as far back as 1921.

In addition, it was reported that with the cessation of imports of glassware from Japan after the outbreak of the war in the Pacific, some 15 unregistered glass factories had sprung up in the Calcutta industrial area to cater for local needs which were up till now met by Japanese imports. Owners of glass factories, when asked about the future of the industry in the post-war period, expressed confidence in the future provided protection was granted in the immediate post-war years. Most of them pointed out that the possibilities of the glass industry in India in the post-war period should not be judged by the present quality of products turned out, because the industry was handicapped by war-time shortage of chemicals and other ingredients essential for glass manufacture, and had been forced to produce articles irrespective of quality to meet the requirements of the market. It was not possible under the circumstances to improve the quality of the products and still maintain the required output. Most of the unregistered factories would probably have to close down in the post-war period as a result of foreign competition, unless improved methods of machine manufacture are adopted. It is a fact that most of the promoters of these factories are concerned with immediate profits and not with the development of the industry. The extent of employment in these small factories may not exceed 400 persons in all. Their main production consists of ink-pots, phials, paper weights, etc., which used to be imported from Japan before the war very largely. The blowers (the most skilled workers) in these factories are normally as skilled as the blower-helpers in the registered factories. Unless they acquired more skill, requisite for a blower of a big glass works, turning out goods of better quality, there would be a marked shrinkage in the demand for this class of labour in the post-war period.

I.—Employment.

The fillip given by the war to the industry has resulted in an increase in the number of the smaller factories rather than in that of the larger establishments. Taking into account the registered as well as unregistered factories, the total employment in the industry at present has increased by approximately 135 per cent., as compared to the pre-war level, in view of the fact that the total factory employment was 2,280 in 1939 and 4,490 (plus 400 for unregistered factories) in 1943. But this increase has not been even in respect of all classes of workers. Shortage of " blowers " even when high rates were offered was generally complained of by employers. A remarkable fact about skilled labour in the industry in Bengal, particularly the blowers, is that the Province is almost wholly dependent on other areas, especially the United Provinces for labour supply. Women workers in all the factories surveyed were generally employed for grinding and packing. Children were found employed as mould holders. The blowers, as a rule, were Muslims. It was found that 90 per cent. of them had come from the United Provinces and the rest from the districts of Noakhali and Dacca in Bengal. This dependence on outside areas has proved a great handicap especially during the present war.

There was no classification of workers under " permanent " and " temporary " categories in most factories. The Scientific Indian Glass Co. Ltd. (the Sigco, for brief) was the only exception, where workers were thus classified. In this factory, confirmation follows the completion of a probationary period of six months, when the employees become eligible to the privileges of Provident Fund, free rations, two bonuses in the year and rent-free quarters, there is no system of apprenticeship for skilled workers in the industry. The shortage of skilled workers felt by the industry has amply justified the necessity of training. Employers questioned on this point stated that some early experiments in this direction had proved costly and futile. The trained workers invariably left their master to take up employment elsewhere on

higher wages. Moreover, blowers also, as a class, try to keep their trade secrets to themselves and show hostility to outside intrusion. By thus guarding their secrets, they seek to safeguard their economic position by restricting the supply of skilled operatives. The Hindus have so far shown disinclination to be trained as blowers on religious grounds, because the same blow-pipe may have to be shared by them with others, while Muslims have no such objections.

Recruitment.—Workers are generally selected by the managers, or their deputies or *mistries* authorised by them, from among those who present themselves for employment at the factory gates. This is the usual method of recruitment of unskilled labour. In regard to recruitment of skilled labour, however, the factories depend almost entirely on their own operatives to bring suitable candidates. Due to shortage of labour, recruits are seldom refused employment and are seldom " trade tested " before appointment. It appears that often there takes place a mutual pilfering of men and employers orally admitted that they had fairly accurate information about the quality, pay and prospects of skilled workers employed in other factories and that in emergencies such workers were offered higher rates of wages for luring them away. In view of the present acute shortage of blowers, the extent of this practice must be considerable. Some factory managers stated that they sent out their *mistries* as recruiting agents on commission basis to recruit skilled workers from Firozabad and other glass producing centres.

Promotion, etc.—There is no system of graded or time-scale promotion in most of the factories. Promotion in almost all cases is possible at the discretion of the managers on the basis of efficiency and merit of individual workers. In one factory only, viz., the Victoria Glass Works, does the system of time-scale promotion obtain. There are no standing orders governing the relations between employers and employees in any of the factory. Nor are there any labour officers to look after the welfare of workers or to redress grievances. The manager himself in most cases is supposed to look into the grievances but in some factories for all practical purpose it is the head *mistry* who attends to them.

Labour Turnover and Absenteeism.—It has not been possible to obtain reliable figures of labour turnover or absenteeism for the industry as a whole. Only four factories furnished comparative figures for 1939 and 1943. From the statistics supplied, it appears that the turnover in August 1939 for the four factories together was as high as 68 per cent., while in January 1943 it had gone up to 98 per cent. Absenteeism in the same four factories from 1939 to 1943 did not show any appreciable change, the respective figures for the two years being 11.44 per cent. and 11.90 per cent. Higher rates of wages in rival firms was alleged to be the principal cause of turnover, and sickness of absenteeism.

II.—Wages and Earnings.

It is difficult to find any definite principle under-lying fixation of wages. Prevalent rates in the locality appear to play a dominant part in this connection. Efficiency and the relative supply and demand of labour also have some bearing on the matter. Unlike organised industries payment of allowances, bonuses, etc., apart from the basic wage, are not a regular feature of the industry. Only a few of the factories surveyed paid dearness allowance while efficiency or profit bonus was seldom given even where output of a worker had shown a rise. Non-payment of bonus was one of the complaints of the skilled operatives. Where dearness allowance was paid it was found to vary between Rs. 2 and Rs. 7|8|- per month and only a negligible proportion of the

claimed by employers that the increased basic wages were inclusive of allowances.

There is no system of payment on job or piece-rate basis, although each worker is required to produce a specified amount of work within the daily scheduled working hours. It has been reported by workers as well as employers, that normally the day's work can be finished well within the scheduled working hours. It may be possible to increase the output by introducing a system of bonus on the output in excess of the normal standard for the day, but perhaps employers do not wish to introduce such a system as it would lead to increased output at the expense of quality.

The following table gives the average increase since pre-war days in the basic rates of wages of the principal categories of workers in the industry.

TABLE 16.

Increase in the Basic Wages.

Name of occupation.	Average pre-war monthly rate (in Rs.).	Average present monthly rate (in Rs.).	Percentage increase.
Blower	60	102	70
Helper	33	65	97
Bubbler	24	47	96
Bubble Holder	19	32	68
Neck Maker	24	58	142
Fireman	37	71	92
Coolies	16	33	106
Others	20	38	90

It will be noticed from the table that the increase in wage rates though substantial has not been uniform for all classes of operatives. The average increase for all classes of labour has been approximately 95 per cent. whereas blower's rates have increased by 70 per cent.

The following table gives the average daily *earnings* in rupees of the principal categories of workers in the glass industry.

TABLE 17.

Average daily Earnings of Workers.

Occupations.	Basic wages earned (excluding over-time)			Total earnings (including over-time and allowances.)		
	Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.
Blower	3·85	2·89	3·42	4·46	3·21	3·85
Blower Helper ..	2·23	1·69	2·18	2·59	2·00	2·55
Bubbler	1·92	2·31	1·63	2·05	1·50	1·92
Bubble-holder ..	1·27	0·95	1·12	2·04	1·72	1·82
Neck-Maker ..	2·13	1·46	2·10	2·62	1·74	2·45
Mould-holder ..	1·11	0·81	0·93	1·11	0·81	0·93
Annealing Cooly ..	2·04	1·48	1·76	2·04	1·48	1·76
Fireman	2·45	1·68	1·99	2·92	1·89	2·35
Lineman ..	1·83	1·25	1·65	2·79	1·70	2·44
Machine Blower ..	2·00	1·33	1·41	2·29	1·70	1·96
Mixing Cooly ..	1·30	0·96	1·06	1·30	0·96	1·06
Women-Cooly .. (Packer and Grinder)	0·83	0·63	0·71	0·94	0·65	0·74
Cooly	1·27	0·69	1·28	1·54	0·92	1·28

It will be noticed from the above table that the "Blower" is the highest paid worker in the industry. The daily average earnings of this class of labour varies between Rs. 3.21 and Rs. 4.46. Unskilled female coolies, who are mostly grinders and packers, are the lowest paid workers and their daily earnings vary from Re. 0.65 to Re. 0.74.

Overtime and Deductions.—With exception of one or two factories no overtime is worked anywhere. It was stated by employers and also confirmed by workers that where overtime was worked, it was paid for at the ordinary rates of pay. No deductions are made from workers' wages except on account of advances and Provident Fund. Fines, it is reported, are rare. Only one factory has resorted to this method of punishing workers for misconduct, late attendance, etc. Fines are deposited in a Fines Fund is used for charitable purposes. The total amount to the credit of the Fund appears to be only Rs. 1|6|- at present.

Wage Periods, Waiting Periods and Paid Holidays.—Generally the bigger factories comply with the provisions of the Payment of Wages Act in respect of wage and waiting periods, but that is not the case with the smaller factories. Workers are paid mostly on a monthly basis. Wages for the month are generally paid on the 7th of the following month. During investigation, however, some cases were found in which the interval between the expiry of the wage period and the actual payment varied between 8 and 10 days. The system of weekly payment is prevalent in one factory only. In most factories where monthly payment is in vogue, the practice is to give advances once or twice during the month at the discretion of the management and this is deducted at the time of the payment of wages. Sundays are usually weekly rest days. But some cases come to light where this holiday has been denied or only partially observed. In such cases, it was reported, only 2 out of 4 or 5 Sundays were observed. Workers generally complained that there were no paid holidays except the Sundays which were observed and that they had to work on Sundays if a festival holiday had been granted during the week. It appears that even when workers are made to work on Sundays, previous sanction of the authority prescribed under the Factories Act is not always obtained. In no case of Sunday work, moreover, are workers paid at enhanced rates of wages.

III.—Working Conditions.

Hours of Work and Shift.—Two shifts are generally worked in the larger factories while in the smaller ones one shift is common. The number of hours actually worked in each shift varied generally from 7 to 9 hours with recess period varying between 1 to 2 hours. Spreadover in most cases did not exceed 10 hours and some cases of an 8-hours spreadover were also found. Hours of different shifts are generally as follows :—

First Shift : 7.30 a.m. to 5.30 p.m. (including 1 hour's rest interval from 1 p.m. to 2 p.m.).

Second Shift : 6 p.m. to 4 a.m. (including 1 hour's rest interval from 9 p.m. to 10 p.m.).

No multiple or overlapping shifts are worked in any of the factories.

Factory Premises.—The main factory premises, where manufacturing processes are carried on, are in most cases sheds open to all sides with corrugated iron sheets or tiled roofs and uneven *kucha* floor with little or no plinth height. As most of these sheds have no ceiling the heat in summer is oppressive. The furnaces located in these sheds add to the heat and make work

under these conditions almost unbearable. It was painful to see *small children* working for long hours under these sheds exhausted by constant exposure to the intense heat of the furance, their faces bathed in perspiration and blackened with soot from the smoke of the furnaces ! In smaller factories the tiled or thatched sheds were mostly in bad condition and the roofs in all probability afforded little or no protection against rain. In a small number of large establishments the sheds were found to have concrete floors and roofs. The mixing rooms are, on the whole, the worst feature of the glass industry. As the proportion of mixing various ingredients is a closely guarded secret, the mixing is variably done in closed rooms with usually one door and no windows. Working in these closed rooms with the air thick with dust of lime, silica and other chemicals is admittedly a serious danger to those who work there without adequate protection. Except in one or two large factories, the mixing coolies were not provided with gloves and mask to protect them against dust and lime. Injuries in the form of cuts and burns or scalding are a common feature in all the glass factories. Women and children generally employed in selecting cullets for remelting and mould-holding were found to suffer most from injuries of these types. Injuries from burns were also frequent in the case of helpers bubble-holders and neck-makers who worked with molten glass without gloves or any such other protection. In factories manufacturing glass tubes, cutting of glass by means of red hot electric wires was common. As no gloves were given to these electric cutters, the handling of the wires was a source of positive danger. No attempt has anywhere been made to introduce a system of artificial cooling which in view of the heat from the furnace seems extremely necessary. Ventilation and lighting are generally good, as most of the factory premises are sheds open on all sides. The only factory where the factory premises have been laid out according to a well thought out plan on modern lines and where due attention has been paid to ventilation, natural and artificial lighting and adequate floor space for worker, is that of the Scientific Indian Glass Co. Ltd. Generally speaking, though there is adequate floor space available to workers in almost all the factories, actually one gets the impression that the bubblers, blowers and annealing chamber coolies are cramped for space and it is possible to eliminate the number of cases of burns and scalds if the space allotted for these workers to work in were more.

Rest Shelters.—In none of the factories are workers provided with rest shelters. It was found in some factories that during the rest interval workers were compelled to sit in the open under the shade of trees and have their "tiffin" which they purchased from hawkers at the factory gate. In another small factory, it was found that for want of sufficient space outside the factory premises, workers some how squeezed themselves as far away as possible from the furnace which nearly covers the entire space under the shed and had their tiffin which they brought with them from their homes. Rest interval in all cases was not sufficiently long to enable workers to go to their homes for their meals. It was reported that workers did not go to their homes even when these happened to be near the factories as the rest interval was too short and workers were penalised with fines (not admitted by employers) if they happened to be late in returning to work. The condition of workers in the absence of either adequate rest intervals of rest shelters, especially in factories where no such space was available, was deplorable.

IV.—Sanitation and Welfare.

Sanitation.—The sanitary conditions in factories and their surroundings are generally bad. The chief reason for this is the *kachcha* drains in and absence of either adequate rest intervals or rest shelters, especially in factories from workers regarding water supply latrines, washing and bathing facilities

in the larger factories, except in one, where it was reported that no latrines and urinals were provided for workers. In the smaller factories employing less than 50 workers, these arrangements are practically non-existent. In such factories, needless to say, no separate arrangements have been made for female workers. No factory supplies cool water to the workers in summer. Filtered water is generally supplied for drinking purposes.

Health.—In 8 out of the 17 factories there is no Medical Officer. As there was no periodical medical examination of workers anywhere, occupational diseases could not be detected. But Asthma and skin diseases are said to be common ailments of workers in the industry. Workers alleged that lungs of the blowers, especially of mouth blowers, are affected after 2 or 3 years of continuous work. In one factory, it was reported that bubblers usually suffered from itches, probably due to constant exposure to the heat of the furnace. Boric Cotton, Iodine and ordinary liniments only are available to workers in case of accidents like burns and cuts. In smaller factories, the time-keeper is usually in charge of these medicines. Two factories (the Sodepur Glass Works and the Scientific India Glass Company, Ltd.) have got their own properly equipped dispensaries with whole-time M. B. Doctors in attendance. Only 5 factories out of 17 have their own dispensaries and 4 have made arrangements with private doctors who have dispensaries close to the factory, allowance to such part-time doctors varying from Rs. 30 to Rs. 50 per month. Medical report from the *Sigcol* reveals that there were 319 cases of cuts and 36 cases of burns in 1944 (up to October) and these cases received free treatment at the dispensary. There is no system of periodical examination of workers. Employers as a rule, refuse to admit that there could be any occupational disease in this industry. It is, however, alleged by workers that blowers have normally short life. In the absence of any medical evidence, it is difficult to substantiate this statement.

Canteens.—Canteens were found only in 3 factories. Of these, two were maintained inside the Factory area and the remaining one (of the *Sigcol*) outside the factory compound though very close to it. The first two were run by private persons under the direct supervision of the management, while the other was managed by the Company itself (*Sigcol*). The first two factories, viz., the Sreegobinda Glass Works and the Bharat Glass Works supply only tea, bread and biscuits to the workers at the market rates. A special feature of the canteen run by the *Sigcol* is that workers are given one tiffin consisting of *chapati, dal* and sweets. This canteen has been very popular with workers in spite of their caste and religious prejudices. Complaints were made by the workers against canteens run by some managers elsewhere, particularly about the bad quality of the cooked food and comparatively high cost. The popularity of the canteen run by *Sigcol* is attributed to the excellent quality of food supplied *free of cost.*

Creches.—Though women workers are employed in both small and big factories in large numbers no creche for children is maintained by any of the factories surveyed. In certain factories, nursing mothers were found to be working with babies on their lap or on improvised straw beds near their place of work.

Grain Shops.—Only five factories were found to maintain grain shops. Rice, *atta, dal,* mustard oil, salt and sugar were supplied to workers normally at Government control rates from these stores though in a very small number of cases these articles were sold even at concession rates. A case, for instance, is that of the Hardeo Glass Works of Dacca which sold rice at Rs. 10 per maund, whereas the control market rate was Rs. 16. *Sigcol* is again an out standing exception among the factories surveyed in this respect. Food grains

were supplied to workers free of charge. This benefit, however, is extended to their permanent staff only, the temporary workers being supplied rations at concession rates only. It is reported, however, that some of these 17 firms used to supply rice and *atta* during the famine period at concession rates to workers.

V.—Housing.

The total number of workers employed in the 17 factories surveyed is 4,628, of which 762 or about 17 per cent. are housed in employers' free workers. These 11 factories with a full strength of 3,066 have accommodated 762 or in other words, about 25 per cent. of their workers, free of rent. The usual types of houses are : (1) *kutcha, bustee* type houses accommodating 36 per cent. of the total number of workers actually housed, and (2) *pucca*, generally barrack type buildings, accommodating approximately 64 per cent. One employer, namely the Glass Producers, has rented two two-storeyed barrack type *pucca* buildings and a few huts in the *bustees* for accommodating their workers. The workers are accommodated on the top floor of the two-storeyed building, the ground floor being occupied by shops. But the rooms accommodating the workers are very spacious—14 ft. × 10 ft.—and with a number of windows. The houses in the *bustees* rented by the firms are reported to be better ventilated than the usual ones and are in a better condition of upkeep also. In one factory alone an attempt has been made to provide family quarters with separate arrangement for kitchen (Bharat Glass Works). These family quarters have been allotted to the blowers who live with their families. The second type of accommodation afforded by this Company is the same as the first with the exception that the units have slightly smaller rooms and have been allotted to workers to be used as messes. The third type of accommodation in this Company is *kutcha* shed consisting of two rooms—30 ft. × 20 ft.—accommodating 25 workers per room. These have been allotted to coolies generally.

VI.—Trade Union.

There is no trade union worth the name among the glass workers of this province, nor have works committees been set up in any of the factories. The mobility of labour from factory to factory and from province to province is said to be the chief obstacle in the way of the formation of trade unions among these works. A trade union named the Calcutta Glass Workers' Union was formed in December 1942 and registered on the 15th February 1943. Its membership on the 31st March 1943 was 327. The income of the union during the period from November 1942 to March 1943 was Rs. 18|12- and the balance at the end of the same period was Rs. 1|13|6. The membership is limited only to persons working in " glass-blowing " companies in Calcutta and its suburbs. Very little is known about the activity of this union.

VII.—Working of Labour Acts.

All the factories surveyed come within the purview of the Factories Act the provisions of which according to employers, are duly complied with. The enquiry revealed that the visits of the Factory Inspectors have been generally few and far between. A fairly large number of factories had not been visited by any Inspector in the course of the last three years ! Neither are any records of the visits of the Factory Inspector maintained in most of the factories. In one factory only, where a record of visits has been maintained, the Factory Inspector's report points out defects in the fancing of machines. It was stated that the Inspectors did not insist on the Companies maintaining any permanent record of their visits, although the usual practice is that in case violations are noticed during inspections, notices are sent to the factories which are kept in a file as permanent record. Though the provisions of the Maternity Benefit Act, the Payment of Wages Act, the Workmen's Compensation Act and the Factories Act are claimed to have been duly complied with

by managers, violations of some of the provisions of these Acts were too obvious to escape detection. Contravention of the provisions of the Factories Act in respect of employment of children below the age of 12 is a common occurrence in all the small factories and a few of the larger ones. Quite a large number of children below 12 were found to work as mould-holders and also as coolies. In some cases, they have been found employed as neck-makers, exposed to the intense heat and glare of the furnace. Even where child labour above the minimum age was engaged, no distinction was made between them and adult workers in respect of hours of work. Children below the statutory minimum age when questioned as to their age in each of the factories, in a majority of cases significantly said that their age was 18 years. It was obviously the result of tutoring by employers at the time of appointment. In 90 per cent. of such cases the factories had not even obtained certificates regarding age from a certifying surgeon. The reason for employment of child labour under the present stress of labour shortage is obvious. For example, children are employed as neck-makers and are made to work for an equal number of hours with the adults but paid much less on the plea of age and experience. It was reported that most of the unregistered factories are almost wholly manned by children with only a very small percentage of skilled or semi-skilled adult workers.

In none of the factories employing female labour, is there any record to show that maternity benefit has ever been paid. The usual reply of employers was that such cases did not arse in their factories. The survey brought to light the fact that employers in small factories are generally themselves ignorant of labour legislation. It, is no wonder, therefore, to find a violation of the acts in these factories. In certain cases where employers appeared to be cognisant of their liability under the Maternity Benefit Act, they engaged widows only or discharge female workers at the first intimation of their pregnancy. Employers who were blissfully ignorant of their liability under the Act stated that pregnant women worked even up to 10 days before confinement and that they returned to work a fortnight after. These employers expressed surprised that such women received any monetary help to meet the expenses of childbirth and stated that the female workers had to incur no expenditure during confinement.

The employers have been taking advantage of the ignorance and illiteracy of workers as also the absence of trade unionism. The provision regarding display of notices giving relevant sections of the various Acts both in English and in the vernacular have hardly served any purpose at all as most of the workers are illiterate.

As has already been stated no case of occupational diseases has been reported from any of the factories in the industry. The report of an accident in the *Sigcol* was the only information available regarding accident satistics. As the accidents generally are of a minor nature like cuts, burns, etc., no record of such accidents is maitained, nor are they reported to the Inspector of Factories. Two cases have come to light in which employees sustained major injuries, one in the *Sigcol* where a worker lost his right arm. The worker in question was examined during the enquiry and he corroborated the statement of the Company that all the medical expenses were borne by the factory during his convalescence. He was also paid a compensation of Rs. 1000 and given employment again as supervisor on recovery. The compensation money has been deposited in a bank in the name of the worker and he will be paid the capital plus the interest at the time of his retirement. In the Sodepur Glass Works, all technical personnel are covered by insurance wih a private company. Three cases of accidents occurred in 1943 and compensation according to the Act was paid by the Insurance Company to the persons concerned.

VIII. *Indebtedness.*—A great majority of workers are indebted to private moneylenders, the principal causes of borrowing being low income, high cost of living, extravagant expenditure on ceremonies, etc. The rate of interest charged generally ranged from 20 to 30 per cent. per annum. As the indebtedness of workers is almost chronic, remedial measures should first come from the management by way of increase in wages where these are below the subsistence level, and opening of co-operative credit societies attached to the factories to dispense with the ubiquitous *Kabuli* who has found in the poor and illiterate factory labour a safe and profitable field of investment. The system of granting advances once and even twice a month almost to all workers would show that the earnings are generally inadequate.

IX. *Provident Fund and Gratuity.*—The *Sigcol* is the only factory where the members of the permanent labour staff are given the benefit of a Provident Fund. There is no pension scheme or gratuity in existence in any of the glass factories surveyed. The absence of special priveleges in the shape of provident fund, gratuity and such other long term benefits which could have developed in the workers a sense of loyalty to the factories has encouraged unfair and harmful competition between different employers (in the glass industry) who offer higher and higher rates of wages to obtain the services of workers employed by others. Increase in wages is, therefore, to a very limited extent due to the increased skill of operatives or rise in the cost of living. Far-sighted factory-owners have stated that the industry in the post-war period will not be able to face foreign competition at a high labour cost, unless the rates of wages of blowers and other skilled operatives are commensurate with their skill. Stabilisation of labour in the glass industry can be brought about by filling in the existing gaps in respect of payment of long-term benefits like provident fund, gratuity and pensions.

CHAPTER V—BOMBAY.

I.—Introductory.

The glass industry in the Bombay Province owes its origin to the Paisa Fund Glass Works of Talegaon (Poona) which was the pioneer in the field. In fact, it may be stated the Talegaon factory served as a training centre for many of the pioneers of the glass industry in other parts of India,—Bahjoi in the U.P., Calcutta, Bombay City and Suburbs, Ogalewadi, Bangalore, Nagpur, Trivandrum, etc. Before the establishment of the Paisa Fund Glass Works in 1908, the manufacture of glass hollow-ware and press-ware was totally absent in India. Inspired by the swadeshi movement of the first decade of this century, one Mr. A. D. Kale collected a few thousands from the masses collecting one *pice* from each contributor (hence the name, Paisa Fund, *i.e.*, one-pice fund), and started the Works with the help of certain political leaders as a school of glass technology. A few Japanese experts and Mr. Varshneya, who had taken training in Japan and who later started the U.P. Glass Works of Bahjoi, trained the students not only in the manufacture of glass products but also in the theory of glass technology. One happy result of their activities has been that at present most of the glass factories in India are fully managed by Indians, without any help from outside. The credit for the growth of the glass industry in India thus goes to the oldest factory in India at Talegaon, started with an inspired ideal. At the same time, one cannot help feeling that the factory, which has served creditably, as a training centre, could also have been run as a commercial concern catering for the needs of the public. If that were possible, it would have been a nucleus of glass industry in the Bombay Province, if not in India as a whole, with its innate

advantages of priority in the field, active public support, availability of selfless workers, economical working due to cheap labour and raw materials, location, etc. The main cause of this failure appears to have been that the Paisa Fund was a *public* institution with too many persons trying to control its affairs.

The progress of the industry in the Bombay Province has been very slow, and, as may be seen later, several of the concerns investigated by us have been of war-time origin. The industry has expanded considerably during recent years, but even now it can scarcely be included among the major industries of the Province. The following figures reveal the development of the industry in the Province (excluding States).

TABLE 18.

Number of Factories and Workers (1940-43).

District.	1940		1943	
	No. of Factories.	No. of worker.	No. of Factories	No. of Workers.
Bombay City	2	481	3	1,921
Broach & Panchmahals	1	548	1	392
Poona	1	297	1	282
Sholapur	1	88	1	93
Bombay Suburban	..	..	6	605
Total ..	5	1,414	12	3,293

Note.—The above figures refer to factories covered by the Factories Act, Sec. 2(j) and 5.

The expansion is due to the establishment of 7 new factories out of which 6 are in the Suburbs of Bombay. The figures show that the expansion has taken place mainly by way of an increase in the number of factories rather than in the average size of individual concerns.

Sampling of Units.—All the factories referred to above fall under the Factories Act. There were, however, numerous concerns (especially bangle-making workshops) which were not covered by the Act. The unregulated concerns, however, were of a small size, employing few workers and having limited resources. Moreover, there were a few large concerns in the neighbouring States to which evidently the British Indian laws did not apply. All these factors were taken into consideration in the selection of samples. Altogether 7 units as detailed below were chosen for investigation on the spot.

TABLE 19.

Glass Factories Investigated.

	No. of Factories.	No. of Workers.
I. Factories covered by Factories Act.—		
Bombay City	3	1,921
Poona District	1	282
Sholapur	1	93
II. Factories outside the scope of Factories Act.—		
Bombay City	1	13
Indian States	1	1,410
Total	7	3,719

II.—Employment.

The table below gives the number of workers in the seven concerns investigated at various dates during war time. Except in the case of G-1 and G-3, there does not appear to be any marked expansion in the number of workers employed. The expansion in G-1 and G-3 has been the result of war-time demand of Government for manufacturing bottles, tumblers, flasks, etc.

TABLE 20.

Changes in Employment in Units chosen.

Concern.	Date of Establishment.	Period.	No. of workers employed.			Total
			Men	Women	Children	
G1	1934	1939	273	21	..	294
		1943	1,291	195	..	1,486
	(incorporated into limited Co., on 1-4-43	Jan. 1944	1,253	201	..	1,454
G2	Jan. 1943	Jan. 1943	280	150	..	430
		1943	183	120	..	303
		Oct. 1944	231	166	..	397
G3	1916	Aug. 1939	452	14	71	537
		Aug. 1944	1,087	54	269	1,410
G4	1908	1939	265	21	..	286
		Aug. 1939	241	26	..	267
		1943	227	32	23	282
		Jan. 1944	258	36	16	310
G5	1939	1939	48	31	..	79
		1943	54	39	..	93
		Dec. 1944	40	20	..	60
G6	Jan. 1942	Jan 1944	13	..	..	13
G7	1938	1939	106	26	..	132
		Aug. 1939	122	29	..	151
		1943	105	26	1	132
		July 1944	113	28	7	148

Female labour, whose wage-rates have been invariably lower than those of males, are employed in this industry as grinders, cutters, moulders, packers, sorters and in the soda test and " broken " departments. G1 has got a scientific section, where 40 girls of pre-matriculate standard are employed in preparing scientific glass apparatus such as curettes, burettes, condensers, capsules etc. In 1944, six of the investigated concerns had employed 505 females, out of which 201 were in G1 and 166 in G2. Children are often employed in glass concerns, but many of them, it seems, are declared as adolescents and even as adults.

These children work as coolies, as ordinary packers, and even as cutters. In G3, which is a concern in a small Indian State, there were 269 children in August 1944. In other concerns there are sufficient grounds to believe that child labour is being employed. For example, in the case of G2 the Factory Inspector noted down in the Inspection-Book that he once noticed two children running out of the blowing department.

Length of Service.—Only three out of seven concerns had been established before 1938. The figures of length of service for these three concerns are given below :—

TABLE 21.

Number of Workers who have served for.

	Less than one year.	1—5 yrs.	5—10 yrs.	Over 10 yrs.
G1	386	357	..	..
G3	753	410	140	107
G4	41	110	20	32

As for the other concerns, the figures about length of service are of little use, partly because the concerns are comparatively new and partly because of the lack of interest shown by the employers in the maintenance of statistical data. Due to constant shifting of labour, it is difficult to come to any conclusion as regards length of service. From the muster-rolls of G1, it is clear that many workers, especially skilled ones, have resigned once, twice or even thrice, and have joined again in the same factory. Another example is of G5, which is even now being closed often because of shortage of local and of raw materials and also because of inefficient management. Employment of labour is consequently irregular and intermittent and every year practically a new set of workers is employed.

Classification of Workers.—In most of the factories there is no regular classification of workers into permanent and temporary categories. Generally, the workers are daily-rated and monthly paid and are often discharged without any notice. The reasons seem to be the infant and unorganised state of the industry, absence of any facilities, which distinguish a permanent from a temporary worker and the smallness of some concerns, where the relations between employers and employees are more personal than businesslike. Even in those concerns which claim to have permanent and temporary class of workers, many of the privileges such as holidays, leave, etc., are practically same for both the categories. Distinction is, however, made for the purpose of Provident Fund, bonus and increments.

Apprentices.—In none of the factories, there seems to be any system for ordinary or supervisory posts. Skilled workers are required in some of the processes of manufacturing hollow and press-wares. However, such labour can be easily trained in a few months. The Talegaon Works, as we noted in the beginning, had been started with the idea of imparting theoretical and practical training and for the first few years students were taught such advanced subjects as physical chemistry, glass technology, heat measurement, fuel technology and geology. At present, it is doubtful whether except for a few members of the superior staff, anybody in the modern glass factories knows anything about the theoretical side of glass technology. The result has been a lack of progress as far as initiative and new methods are concerned ; research by intelligent and interested students in glass technology would have been of great value in this respect. Most of the workers are at present little educated and their training at the hands of the supervisors or foremen is mechanical and routine. Even in the scientific section of G1, non-matriculate boys and girls are employed to work on the preparation of highly technical and accurate apparatus. In respect of the apprentice system, one of the factories stated that unless and until full arrangements were made for the training of the workers, it was no use giving admission to apprentices in any factory.

Promotions.—Generally there seems to be no system of graded or time-scale promotion, except perhaps in G3, where skilled workers get an annual promotion of Rs. 5, and unskilled workers of Rs. 2 to 3 according to the efficiency of the workers. Though it is claimed that promotions are given on merit, *i.e.*, on the ability and efficiency of the workers, they are generally granted mainly at the discretion of the employer. Often a worker threatens to go away on the pretext that he is offered higher wages outside and his wages are increased !

Labour turnover.—The following figures give some details of labour turnover in three out of the seven concerns investigated.

TABLE 22.

Labour Turnover in Three Factories.

Factory.	Period.	Aver. daily No. of workers.	No. of workers left.				% of monthly turnover
			Retired.	Dismissed.	Vol. left.	Total	
G2	Jan.—Oct. 1944 (10 months.) ..	302	*Nil*	*Nil*	585	585	19·4
G3	Aug. 1939	537	*Nil*	*Nil*	10	10	1·9
	Aug. 1944	1,410	*Nil*	*Nil*	44	44	3·1
G4	1939	286	*Nil*	*Nil*	103	103	3·2
	1943	282	*Nil*	*Nil*	383	383	11·3

The above figures reveal that there are no retirements or dismissals and the labour turnover is solely affected by the number of persons, voluntarily leaving the concern. Another fact is that labour turnover has increased during war-time, possibly because of the demand for labour, both skilled and unskilled. To remedy this evil, an employer suggested that a sort of general agreement should be arrived at between employers that no worker coming from another factory would be employed, without a proper discharge certificate from the concern last served by the worker. It is, however, doubtful whether this method would prove practicable, as it amounts practically to black-listing.

Absenteeism.—Figures of absenteeism are substantial just after the wage-period and in the first week of each month. The reason for the first is that the workers, with ample money in their pockets, are tempted to spend it in enjoyment or in going to their native places for domestic or other reasons The reason for the second is that the worker exhausts all his money and has no ready cash with him. To earn hard cash, he sometimes absents from his factory and works as a cooly or takes to some such work which gives him ready money. The following figures show the extent of absenteeism in a few concerns :—

TABLE 23.

Absenteeism.

Factory.	Period.	Av. No. of workers on roll.	Workers absent.	Percentage of absenteeism.
G3	Aug. 1939	500	60	12·
	Aug. 1944	1,400	100	7·1
G4	1943	282	41	14·5
G5	1944	13	1	7·8

The main cause of absenteeism given by the workers is sickness. Other causes are difficulties of securing foodgrains or other articles, private business, accidents, etc. One factory suggests substitution of labour-saving machinery wherever possible without affecting the industrial efficiency and securing the greatest results at the least cost. It is doubtful whether this measure would reduce absenteeism on the average.

Recruitment.—The problem of recruitment has been aggravated by the outbreak of war. The factories required blowers, chemists, and other technical labour, and alluring offers were made to skilled workers, who lost no opportunity of improving their prospects, when better terms and facilities were offered to them. The result has been that skilled workers from other factories are constantly lured away by higher emoluments. One of the employers admitted that it imported " stolen " skilled labour from Talegaon, Bombay and the Hyderabad State. However, this labour though imported after payment of railway fare and advances by the factory often runs away, being allured by better prospects elsewhere ! This complaint of labour being " stolen " seems to be common in every glass concern. G1 imports at its own cost skilled labour from the U.P., but many of the workers thus imported are enticed while in transit by agents of rival concerns, in spite of the fact that advances are granted to these workers. The U.P. workers are supposed to be more skilled, partly because of the development of the industry there and partly because of the aptitude of the U.P. workers. However, the manager of G1 complained that when these workers brought down to Bombay, they often lose their skill and work slower than before.

Labour Officers.—There is a Labour Officer only in one factory. He does the work of recruitment also. In other factories, Labour Officers are not considered necessary, mainly because of the small number of workers and also because of financial difficulties. The grievances of a single individual or of a group of workers are looked into by responsible men, directly in contact with the workers, such as the muccadam, foreman, or manager.

III.—Wages and Earnings.

Wage-rates.—Appendix IV gives details of wages of various classes of workers in the different departments of G.1, one of the biggest glass factories. The wage-rates for some important categories of workers in other investigated factories are given below :—

TABLE 24.

Rates of Wages.

Name of Occupation.	G2		G3		G4		G5		G7	
	1939	1944	1939	1944	1939	1943	1939	1944	1939	1944
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Supervisor	..	..	50 p. m.	70	..	..	..	..	48	60
Blower	60	100	45	65	20	30	30	90	25	60
Bubbler	30	45	8	14	14	17	15	45	20	20
Cutter	..	..	18	21	14	17	..	..	14	16
Carboy-maker	..	..	..	..	25	40	..	..	..	..
Firemen	30	60	20	29	20	32	30	60	15	40
Gatherer	45	80	13	16	16	22	..	..	..	..
Helper	..	..	..	..	18	26	25	60	25	34
Packer	..	..	12	30	18	30	..	..	22	30
Coolies Male	30	45	12	18	12	20	5 as. p. d.	12 as.	12	15
Coolies Female ..	17 p. m.	25					4 as. p. d.	6 as.	10 p. m.	14

NOTE.—The figures of G5 include dearness allowance.

There seems to be a wide variation in the rates of wages. Wages are generally low in the mofussil areas, and particularly in factories situated in Indian States. In all cases, the rates have increased since 1939 and the rise is on an average about 50 per cent., though it is very much higher in the case of skilled workers.

Principles of wage fixation.—The principles determining the fixation of wage-rates for ordinary workers depend upon their availability (supply and demand), the urgency of production, the financial stability of the concern, and the cost of living in the locality. The wage-rates of the skilled workers depend upon their efficiency, experience, scarcity, or monopolistic position. All these factors vary from one category to another in the same industry. Generally, when a new worker comes at the gate, his trade-test is taken before recruitment by the foreman in charge of the section, or by the engineer, or by the production (works) manager, and the wage-rate, generally the minimum for that trade, is fixed. Promotions, therefore, are at the sole discretion of the manager.

Dearness allowance.—There is no uniform or regular system of dearness allowance in this industry. Appendix IV (in the footnotes) gives details about various allowance and bonus paid to the workers of G1. In this concern, as well as in G5, G6 and G7, workers are paid according to market rates and then the difference between the current pay and the pre-war pay is treated as dearness allowance. Thus, the dearness allowance (which is practically the difference between the gross earnings and basic wages) is scarcely demarcated and varies in case of individual workers and their categories. In G7, for example, dearness allowance calculated in this manner varies from Rs. 12 to Rs. 33 in the case of men, and from Rs. 6 to Rs. 10 in the case of women and children. In G2 and G3, dearness allowance is calculated as a certain proportion of the wages and amounts to 6¼ per cent. in the former concern and 60 per cent. in the latter. Lastly, in G4 the monthly dearness allowance (known as attendance allowance) is paid at a flat rate and is Rs. 10 for furnace workers, Rs. 8 for other male workers, Rs. 6 for female workers and Rs. 4 for children. Dearness Allowance is conditional upon a minimum number of days' attendance by the worker and is reduced proportionately for the days of absence. In G7, however, if a worker is absent for more than three days without permission, he is not entitled to the attendance allowance.

Bonus and other allowances.—Bonus is paid in only three of the concerns investigated. In G4, permanent workers are paid one month's pay every year. In G3, bonuses amounting annually to 2 months' pay have been paid for the last 3 years. In G1, two kinds of bonuses—a war bonus and "standard production bonus"—are paid to the workers. Details will be found at the end of Appendix IV. The other allowances granted to workers are rent allowance (or concession in rent where housing is provided by the employer), cycle allowance and festival *bakshis*. In G1, free quarters are provided to workers of the blowing department ; in G4 concession to the extent of 50 per cent. of the rent, amounting to from Rs. 2 to 5 is given to workers living in quarters provided by the factory. Rent allowance in G7 is given only to 10 persons and the amount varies from Rs. 3-8-0 to Rs. 9 per month. Cycle allowance of Rs. 2 per month is paid in G3 to 27 workers, who stay in the town four miles away from the factory. Arrangements are also made to bring their food in tiffin-carriers from the town through a factory servant.

Earnings.—Appendix V gives details of wages and earnings for various categories of workers in the glass factories investigated. There seems to be a wide variation in the rates of wages and earnings. All the figures are for time-rate workers ; only in G4, where 20 coolies and 6 masons were employed at

the rates of Rs. 1-4-0 and Rs. 3 per day respectively by a contractor for building a new furnace, piece-rate work was found. This piece-rated contract labour, however, is only temporary, *i.e.*, till the furnace is built. Similarly a burud in G5 is paid Rs. 25 for preparing 100 bamboo baskets in which the glass products are packed and dispatched. The raw material for the baskets is supplied by the factory. The wage figures in Appendix IV show that women are paid for lower wages than men, often for the same job. In the Ampoules Department of a factory, where scientific apparatus is being made, the maximum a male worker gets is Rs. 180 per month, while the maximum for the female workers is only Rs. 75 per month. Women working as grinders, packers, cutters, sorters and coolies invariably get lower wages than men working in the same jobs. Children work as packers and coolies in this industry and are the worst sufferers.

Overtime.—Overtime is worked in factories where there is a shortage of workers and where war orders are executed. Overtime, where it is worked, is paid according to rules laid down under the Factories Act. In G3, a factory in an Indian State, overtime is paid at 1½ times the normal rate. In G2, furnace workers are denied the holidays with pay that are given to other workers and hence they are taken as working overtime on these days and are paid accordingly. On the whole, however, overtime is rarely worked in this industry, and wherever it is worked it is not compulsory. Registers are maintained to record overtime and they are available for inspection.

Deductions.—Deductions are rare. In G1 and G5, advances paid are recovered by instalments from wages paid. In G3, deductions of 1 annas as school tax and annas 2 as medical tax are made. Besides, from those who live in quarters provided by the factory the following amounts are collected : Re. 1 to Rs. 5 as house-rent, Re. 1 for electric lamps per point, and As. 4 as water and conservancy charges. In G4, the deductions are made for boarding charges, advances and grain issued. G7 found that repeated warnings and instructions regarding the loss to be borne by the factory resulting from bad work improve the tone of the workers. They are given to understand the importance of good work which would give them promotions and which would also do good to the factory. Workers in this industry are rarely fined and hence there was no fine fund in any of the factories investigated.

Wage payment.—Generally most of the workers, except those who are permanent like supervisors, foremen and some skilled workers, are daily-rated and monthly paid. Following the Payment of Wages Act, all factories which employ less than 1,000 workers (*i.e.*, G2, G4, G5, G6 and G7) make payment on the seventh of every month. G1 makes general payment of wages on the 5th and before the 10th of every month. G3 which is in an Indian State and hence outside the scope of the Payment of Wages Act, pays its workers according to convenience from the first to the fifteenth of the month. In G2, wages are paid on the 6th of each month to men and on the 7th to women. If the dates happen to fall on Sundays or other holidays the date just preceding is fixed for wage disbursement. Those who do not turn up on the days fixed for wage payment are paid as and when they present themselves.

Sundays and holidays.—Generally Sundays are observed as holidays ; but if any " public holiday " falls on a week day, the next or previous Sunday becomes a working day. If the workers are daily-rated, these holidays are without pay, but if they are monthly rated, the holidays are considered to be with pay. However, in G2, some holidays with pay are given in addition for festivals. Also in G3 about 17 half-paid holidays are granted to workers in addition to Sundays. It seems that the nature of work in most of the factories necessitates continuous furnace work and so the furnace workers get holidays in rotation.

The following figures from the Factory Statistics show the number of days worked by some factories in 1943 :—

TABLE 25.

Number of days worked during the year 1943.

Day or Night Shift.	G1		G2		G4	G7
	Day Shift.	Night shift.	Day shift.	Night shift.	Day shift.	Day shift.
No. of days	310	310	355	303	293	313

IV.—Working Conditions.

Shifts and Hours of Work.—The following table gives the details about shifts, hours of work, lunch interval and total spreadover in the factories investigated.

TABLE 26.

Shifts and hours of work.

Factory.	Details of shifts.	Hours of work.		Lunch interval.	Actual hrs. worked.	Total spread-over.
		Begins at	Closes at			
G1	One—General	8 A.M.	6 P. M.	12 NOON—1 P. M.	9	10
	Three—furnace (*i*)	12 mid-night.	8 A. M.	6 A. M. —6-30 A.M.	7½	8
	(*ii*)	8 A.M.	4 P.M.	12 NOON—12-30 P.M.	7½	8
	(*iii*)	4 P.M.	12 NOON	8 P.M. —8-30 P.M.	7½	8
G2	Two—blowing (*i*)	8-45 A.M.	6-15 P.M.	11 A.M.—11-15 A.M. 1 P.M.—2 P.M. .. 4 P.M.—4-15 P.M.	8	9½
	(*ii*)	6-45 P.M.	4-15 A.M.	8-45 P.M.—9 P.M. 11 P. M.—12 midnight 2 A.M.—2-15 A.M.	6	7½
	Three—furnace (*i*)	9 A.M.	5 P.M.		..	8
	(*ii*)	5 P.M.	1 A.M.	Recess according to	..	8
	(*iii*)	1 A.M.	9 A.M.	convenience.	..	8
	One—finishing	8-30 A.M.	6-30 P.M.	1 P.M.—2 P.M. ..	9	10
G3	Three .. (*i*)	2 A.M.	10 A.M.			
	(*ii*)	10 A.M.	6 P.M.	½ hour's recess in	7½	8
	(*iii*)	6 P.M.	2 A.M.	each shift.		
G4	One—General..	8-30 A.M.	6-30 P.M.	1 P.M.—2 P.M. ..	9	10
G5	One—General..	8-30 A.M.	6-30 P.M.	12-30 P.M.—2 P.M.	8½	10
	Three—Furnace (*i*)	8 A.M.	4 P.M.			
	(*ii*)	4 A.M.	12 mid-night.	No. recess ..	8	8
	(*iii*)	12 mid-night.	8 A.M.			
G6	One—General..	9 A.M.	6-30 P.M.	12-30 P.M.—1-30 P.M.	8½	9½
G7	Two—General	Adults 8-30 A.M.	6-30 P.M.	12-30 P.M.—1-30 P.M	9 5	10 6
		Children 8-30 A.M.	2-30 P.M.			
	Three—Furnace (*i*)	8 P.M.	4 A.M.	One hour recess	7	8
	(*ii*)	4 A.M.	12 NOON	according to their		
	(*iii*)	12 NOON	8 P. M.	convenience.		

In all the cases, furnace workers have three continuous shifts, because of the continuous nature of the work involved. The number of workers in these shifts are very few. The above table also shows that though there are a number of shifts, there is no " overlapping " in any one of them. As for hours of work, it seems that the glass factories have been exempted from Sections 36 (Daily Hours) and 38 (Spreadover) of the Factories Act.

Factory Conditions.—The factory building is generally open on all sides, being usually built as a big shed with arches and hence natural ventilation, lighting and protection against heat are assured. On the whole, however, conditions in this respect conform to the minimum standards laid down under the Factories Act and the Bombay Municipal Act. There is some congestion, especially in the City of Bombay where the newly built or expanding concerns feel acute scarcity of land, more so because of the Government notification prohibiting the construction of any new buildings without previous sanction. Congestion is also felt in mofussil areas because of small structures. The building of G5, for example, is a shed with an area of about 60 ft. × 70 ft., with *kacha* ground smeared with cowdung. In the same factory, boots or other means for protecting the feet from glass splinters and from heat are not provided by the Management and the workers have to make their own arrangements in this respect.

Shelters.—Shelters have been provided in only three out of the seven concerns investigated. Out of these, the shelters in G2, which are two rooms (one for men and another for women) are being at present utilised for residential purpose, because of acute shortage of housing accommodation. The factory authorities have applied for permission and material to build new quarters for workers and when the quarters would be built the two rooms will be utilized for the original purpose. In G3, three buildings measuring 80 ft. × 84 ft. have been built as shelters. The rest-rooms of G4 are built in a rural fashion. Other concerns do not think it necessary to have shelters or rest-rooms, either because their workers live close by or because they can take rest in the factory premises.

V.—Welfare activities.

Latrines, Urinals, Water-supply, etc.—The following details reveal that the factories have provided what may be called as " statutory welfare ", *i.e.*, the minimum standards prescribed under labour legislation for the welfare of the workers :

TABLE 27.

Latrines, Urinals & Watersupply.

Factory.		No. of workers employed.	No. of latrines.	No. of Urinals.	Water supply.
G1	...	1,450	13	5	2 water tanks & taps.
G2	Men	231	6	..	1 bath room & taps.
	Women	166	4	..	1 washing place & taps.
G3	..	1,410	7	..	Well water.

In G4, water for bathing and washing purposes is available from a lake about 2 furlongs from the factory. Drinking water is supplied through water-taps in urban factories and through earthen pots in rural areas.

Medical Aid.—Only two concerns have maintained dispensaries the details of which are :

TABLE 28.

Dispensaries.

Factory.	No. of workers.	Medical Staff & their monthly remuneration.	Cases treated per day.
G1 ..	1,450	Part-time L. C. P. S. Doctor (Rs. 125)	25
G3 ..	1,410	M. B., B. S. Doctor (Rs. 125), Compoundor (Rs. 40) & Dresser (Rs. 18)	150

Allopathy is the system followed and the common diseases are malaria, bronchitis, and conjunctivitis, skin and eye diseases, minor cuts and burns. No mention is made of any occupational disease in this industry. In other factories, first-aid boxes are kept. Minor cases of cuts and burns, that are so common in this industry, are treated by first aid, while serious cases are sent to the nearest hospital. Periodical medical examination seems to be completely absent in this industry.

Canteens, creche, schools and grain shops.—Very little has been done in all these matters. Only G3 has got a canteen which is run by a contractor and where tea and meals are provided at rates 25 per cent. lower than those in the market. In Bombay City a number of hotels exist near the glass works and the workers take advantage of them. A number of workers bring their lunch from home and eat it in the rest-interval in the factory compound. Though a number of women have been employed in this industry, none of the factories has provided any creche for its female workers. In 1940, the Bombay Government issued notifications requiring 154 factories ordinarily employing 100 women or more to provide facilities for infants of working mothers. In G1, even though there are over 200 female workers, no creche is maintained, the reason given being the fact that most of the workers are unmarried girls between 14 and 18 years of age. In G2, a creche was maintained, but for want of space, the room is now being utilized for some other purpose. G3 thinks a creche unnecessary because almost all its female employees stay nearby. Educational facilities are also almost totally inadequate, in spite of the fact that a large number of adult workers, both men and women, working in this industry are illiterate. There is not a single factory where any arrangement is being made to educate adult workers of the factory. In G7, once an attempt was made to educate the workers but was ultimately given up owing to insufficient response and lack of enthusiasm on the part of the employees. G4, which has provided housing accommodation to a third of its employees, has maintained a school for the children of the workers. Most of the factories, however, have opened grainshops for their workers. In the City of Bombay rationing is in force and all the big factories have been asked to open in their premises grain shops, which stock and sell rationed grains at controlled prices. The three glass factories in Bombay City, which come under the Factories Act, have maintained grain shops since 1943 for their workers. It was, however, found that many workers prefer to register their cards in shops nearer to their residence. G4 provides only non-rationed articles in its shops. G7 sells all rationed grains at lower than the market prices ; only sugar and kerosene are sold at controlled rates. Out of the seven concerns investigated, only two (G5 and G6) have not maintained their own grain shops.

VI.—Housing Accommodation.

Housing provided by employers.—Five out of the 7 concerns have provided housing accommodation for some of their workers. The details are given below :

TABLE 29.

Housing facilities provided by employers.

Factory.	Total No. of workers employed.	No. of workers housed.	Rents charged p.m.	Types of Houses.	Remarks.
G1	1,250	750	*Nil*	Single rooms for workers. Double rooms & qrs. for staff.	Mostly workers imported from U. P. are housed.
G2	430	150	*Nil*	Partly pucca houses (single storey), & partly temporary structures.	
G3	1,410	300	Rs. 3 to 4	Permanent structures of reinforced concrete ; a room and a kitchen (w.c. & bathroom) for each family.	The structure is under construction.
G4	310	50	*Nil*	Well-built rural huts.	
G5	60	5	*Nil*	5 small huts of straw & hay built in a gypsy fashion.	Huts are built by workers themselve on factory's ground.

The conditions regarding congestion, sanitation and water-supply are unsatisfactory. Sub-letting, though usually prohibited, cannot be avoided especially in the urban areas, where the problem of accommodation has become very acute in war-time. Consequently, considerable congestion has taken place. G2 complains that three times applications were made seeking permission to build quarters for workers, but so far with no success. Majority of workers, therefore, somehow manage to live in ordinary temporary structures. Naturally, the conditions as regards ventilation, light, etc., are poor and even irritating and disgusting. These conditions, however, are not far different from those of the workers, who live in houses provided by private landlords or public bodies. Most of the workers in Bombay live in slums, which to the City's disgrace still exist in areas like Mazgaon, Parel and Mahim.

VII.—Trade Unions and Strikes.

Trade Unions and Works Committees.—The labour in the glass industry is not sufficiently organised. There are two unions in the field, but both seem to be inactive. The Glass and Enamel Workers' Union of Bombay was found in March 1943 and is affiliated to the Indian Federation of Labour. It is an unregistered union and claimed 679 members in 1944. The other trade union is confined only to the workers of Ogale Glass Works, Ogalewadi (in Aundh State). None of the factories has got a Works Committee. In the absence of a trade union or a Works Committee it is doubtful whether the genuine grievances of workers come before the Management for consideration.

Strikes.—Most of the concerns have been recently started and hence there have been very few strikes in this industry. The details of the two strikes that have been reported are given below :

TABLE 30.

Strikes.

Factory	Strike started on	Duration of Strike.	Cause of the Strike.	Result.
G2	3-12-1943 ..	One day ..	Women workers demanded increase in wages.	Demand was accepted.
G3	1-7-1944 ..	One day ..	125 workers demanded 50 per cent. extra pay for overtime worked.	Ditto.

VIII.—Factory Legislation.

Factories & other Acts.—Two of the 7 concerns investigated do not come under the Factories Act, one because of its small size and the other because it is in an Indian State. In the latter case, however, most of the provisions of the Factories Act are followed, though no regular factory inspection has been arranged by the State. The same is the case with the other Acts—Electricity Act, Payment of Wages Act, Workmen's Compensation Act and Maternity Benefit Act. The factories, which come under the Factories Act, are generally visited twice and in some cases thrice every year by the Factory Inspector. The Inspection reports of the Factory Inspectors reveal that the factories do not properly lime-wash the latrines, fail to display the extracts of certain Acts ond do not adequately fence the machinery. The factories also observe all the other Acts mentioned above, however, there seems to have been no cases either under the Workmen's Compensation Act or Maternity Benefit Act and hence no compensation or benefit was paid in 1943.

IX.—Indebtedness, Provident Fund and Gratuities.

Indebtedness.—Some idea of the extent of indebtedness of the workers can be had from the loans granted to them by the factories. In a few factories, there is the practice of paying advances to workers against earned wages. In G3, it has been discontinued because such a practice ' enhance the indebtedness '. Monetary help, however, is granted on account of marriages and such other personal matters ; no interest is charged on these advances. Skilled workers (particularly blowers) of G.2 are almost all indebted, on an average of Rs. 150 each, causes, being marriages and heavy demands from members at their homes. The rate of interest is 9 per cent., but in cases where the loan duration is of a few months only, no interest is charged at all. The high rate of 9 per cent. is kept to discourage loans as far as possible. The workers of G.1 are indebted to the extent of Rs. 20,000 to the factory. Maximum indebtedness in case of an individual amounts to Rs. 300 while the minimum comes to Rs. 20 to Rs. 40. All these amounts have been given to workers as advances for personal and other domestic purposes. A number of workers, who had taken advances from the works, left the factory without repaying the loans. No interest is charged on these advances and the amount is regularly recovered from the wages of the workers every month at the time of payment.

Provident Fund.—Out of the seven concerns investigated only G.2 has got a Provident Fund system. It is open to all workers, permanent or temporary ; every worker is to subscribe towards the Fund in each month a sum equivalent to one twelfth of his actual monthly salary and a sum equal to it is contributed by the Company, the whole amount is then credited to the member's account. The member is entitled under certain conditions to the company's contribution after a service of five years.

Gratuities.—At present there is no pension scheme or gratuity given to any worker or workers, irrespective of his or their length of service, in any of the factories investigated. In G.3, however, gratuity equal to half a month's salary for each year of service put in is under consideration in case of workers who have served for a continuous period of 20 years or more.

CHAPTER VI.—THE PUNJAB.

The glass industry in the Punjab is still in an incipient state. It was introduced there by a few enterprising industrialists from Allahabad and Calcutta, and while one of them was established in 1931, other started working later, a majority having sprung up since the outbreak of the war. The principal centre of the industry in this province is Amritsar, where there are 4 factories,

while at Lahore and Ambala there is one factory each. The Amritsar factories produce mostly bottles, while the Lahore factory has specialised in the production of optical glassware and the Ambala factory produces both scientific goods and hollow-ware. For the purpose of investigation, however, only Amritsar was chosen, where it was possible to undertake a detailed enquiry in all the four units. While the industry is not seasonal in the usual way, in actual practice these factories work only for 150 or 200 days in the course or a year, excepting one which works perennially. The "season" of these factories depends entirely for its duration on the supply of coal and raw materials. Since, in recent times, supplies of these have been irregular, the concerns have had to stop work off and on. The practice has been to work at top speed and for all the 24 hours of the day as long as coal and raw materials are available and then to dismiss all workers as soon as stocks of both are exhausted. In most cases, even the technical staff is dismissed and all efforts are made to keep expenditure on labour at the minimum possible. Glass factories are exempt from the provisions of Section 35 of the Factories Act (Weekly Holidays) under Rule 96 of the Punjab Factories Rules and therefore continuous work is possible at any time.

I.—Employment.

Three of the factories started working after the commencement of war after 1942. The figures of employment given below refer to the month of October, 1944.

TABLE 31.

Employment in Selected Concerns (1944).

Average daily No. of workers.	G 1	G 2	G 3	G 4	Total for all factories.	%
Total	98	128	141	184	551	100
Piece-rate	49	29	..	24	102	18·5
Time-rate	49	99	141	160	449	81·5

As for the method of payment, it may be mentioned that while all the four factories employ women as sorters and packers no attendance registers are maintained for them and payments are made daily. They are all piece-rate workers and wages are calculated on the basis of baskets of broken glass sorted or bags of bottles packed. They are employed and paid directly. *Children are not employed in any capacity.* Only in one factory 49 workers, all piece-rate, are employed and paid through contractors. The rest are employed and paid directly by the employers. There is no difference between the wages of men employed and paid directly and of those employed and paid through contractors. The blower-contractor brings his own men who work as a well-combined team and this increases output. The question of the length of service hardly arises in the case of the operatives of factories which are seasonal for all practical purposes. However, one factory recruits labour on permanent basis, but since this was established hardly two years ago no generalisations can be based upon the data given. The only thing that can be said is that unless work is spread over the year and glass factories are brought under the provisions of Section 35 of the Factories Act, workers will never have more than a few months' continuous service to their credit in any particular concern. It was found that the number of workers who had put in over one year's service was 130 out of a total of 551 in October, 1944.

Where workers are employed permanently, some additional privileges accrue to them. Generally, they are allowed leave with pay in case of illness or urgent work necessitating absence. They are also paid when the factory

stops work for a brief duration. Most of the employees are monthly-rated wage-earners but deductions are made for absences. Factory G3 has a very commendable system. When the factory stops work and there is no possibility of resumption of work within one month, they ask their workers to elect between (a) sitting idle at the factory on full pay, and (b) going home on half average pay. In the latter case they are required to keep themselves ready to proceed to the factory at short notice. This has had a very desirable effect upon the workers and as will be seen later it has caused labour turnover in that factory to disappear altogether. There is no regular system of apprenticeship in any of the factories but in G3 one worker known as " apprentice " is being trained as a turner. He works for 8 hours a day and is paid Rs. 1|4|- per day. His period of apprenticeship will be counted towards total service. The Managing Director said he had a plan to institute a regular system of apprenticeship in his concern. That way he hopes to be able to train up skilled workers in his concern and solve the problem of labour shortage. In other concerns, there is no idea of having such a system unless the " helpers " to blowers are to be regarded as apprentices learning the work of blowers. While, however, they help the blowers to increase his output by 75 per cent. they are not paid commensurately. In the course of two or three years they learn the job and become regular blowers themselves.

Labour turnover.—The table below shows labour turnover in the 4 factories.

TABLE 32.

Labour Turnover in Selected Factories.

Unit.	Average daily employment.	No. of workers who left.	%
G 1	68 in Oct., 1944	24	35·3
G 2	193 in Oct., 1944	20	10·3
G 3	141 in Oct., 1944	..	..
G 4	82 in Sept. 1939	8	9·7
	184 in Oct. 1944	90	48·9

As pointed out in the beginning, the glass industry in the Punjab is very young and so skilled and semi-skilled workers have to be brought from the older centres like Allahabad, Firozabad, Calcutta, etc. In one concern, out of 150 workers 100 have been brought from Calcutta. [The Managing Director of this concern had a glass factory of his own there and in 1942 he shifted the machinery to Khasa (Amritsar) and brought most of his workers also with him.] These workers, therefore, like to go back to their home town as often as possible. This results in heavy turnover. The process of blowing glass into shape is mechanised in one concern only and there too it is semi-automatic, requiring a helper to finish the process. As a result blowers are in great demand and they are being paid considerably higher wages now. The newly established factories of this province find it difficult to recruit labour except by sending out paid agents to entice away the workers of other concerns. Travelling allowances and advances are paid and the temptation of getting a lump sum is too strong to be resisted by workers. Other factories follow suit thereby setting up a vicious circle from which there is for the present no escape. The good old adage " as one sows, so one reaps " is illustrated nowhere better than here. The malpractice of bribing away the workers has brought into being a regular set of blowers who have made it their profession to take advances from concerns and run away after working for a couple of days. It is not meant that all labour turnover is caused by this process. What one would like to stress here is that the morale of some of the workers is being

jeopardised permanently. Immediately, however, it is the workers who benefit and it is the employer who suffers from the consequences of his own manoeuvres. The more serious part of the trouble is that due to the defection of workers production has had to be cut down suddenly and in a few cases breaches of contract have occurred. When blowers were questioned on this point, they said that while they are induced to leave the job which they hold at the moment and advances are made on the condition that not more than a tenth of that would be deducted every month from their earnings, in actual practice the whole sum is deducted in the very first month and they are left at the mercy of the moneylender. This embitters them and they leave the concern if they have chances of getting better terms elsewhere. It is necessary to mention here that the two glass factories in Khasa (Amritsar) have recently formed an Association and one of the articles of the Association provides that no member shall engage the workers of any other concern. This has reduced turnover as in that village alternative employment is not available.

Absenteeism.—Figures of absenteeism could be obtained only from one concern in which it was 6.84 per cent. in October 1944, but a perusal of the attendance registers of other concerns showed that the percentage was probably higher elsewhere. As stated above the two glass factories by their agreement, have reduced labour turnover. Indirectly absenteeism also has been lessened. The manager of one factory stated that absenteeism was largest on the three days following the pay-day. An examination of the attendance registers bore him out ; for, quite one-fourth of the workers would not come for two days after receiving payment. While the reason put forth by the employers was that workers got drunk and made merry, the workers said that those who belonged to the neighbouring villages went home for just a couple of days to make proper arrangements for the family and look after things personally. Both the contentions seemed to be true.

II.—Wages and Earnings.

The fact that this industry is suffering from an acute shortage of skilled labour accounts for the very appreciable increase in wage rates since 1939. All the workers except blowers and unskilled coolies are employed on monthly salaries, while the latter are paid on piece-rate basis. The blowers are paid the same rate for a " batch " of bottles of different sizes but the number of bottles per batch is inversely related to their size. Thus while a batch of 1 oz. bottles contains 60 bottles, that of 12 oz. bottles only 30, so that the piece-rate for 12 oz. bottles is double that of 1 oz. bottles. The implication is that the blower would ordinarily produce 30 12-oz. bottles in the same time as 60 1-oz. bottles. Details of batch figures are given below.

TABLE 33.

Number of Bottles in different batches.

Size of the bottle.	1 oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	12 oz.	16 oz.	32 oz.	Nips.	Pints.	Quarts
No. of bottles in the batch.	60	55	50	45	40	35	30	25	16	35	25	20

The average earnings of blowers have increased by about 300 per cent. in the course of the past five years. The rate per batch of bottles in the pre-war days lay between Anna 1 and As. 1½. The current rates range between As. 4½ and As. 6. Unlike wages paid to other categories of workers, those paid to blowers have been continuously increasing right from the first day of the present war. Thus while the general wage level in the glass factories in 1942 was about 30 per cent. above the pre-war level, the wages of blowers had gone

up by 120 per cent. and more. The salary of the mistry in charge was about Rs. 50 per month in 1939. In 1944, in three of the four concerns investigated in the centre the salary of this workman was Rs. 150 p.m. In the fourth he was being paid Rs. 400 p.m. Full details with regard to wages paid in the Punjab Glass Factory are given in Appendix VI, and the following table only summarises the wage position.

TABLE 34.

Average monthly earnings.

Occupation.	Average Monthly Earnings		Increase %
	1939.	1944.	
	Rs.	Rs.	
Mistry in charge	50	150	200
Firemen	20	60	150
Drivers	20	55	175
Mixers	15	40	167
Coal coolies	15	35	133
Blowers	50	200	300
Helpers	25	75	200
Rulsawalas	20	65	225
Moulders	10	30	200
Gaugemen	10	30	200
Linemen	12	34	183
Miscellaneous coolies	12	30	150

In one factory coolies are classified in three grades and are paid Re. 1, Rs. 1|2|- and Rs. 1|4|- per day. Coolies are recruited in the beginning in the first grade and are gradually promoted if found honest and diligent. Women workers (packers and sorters) earn on an average As. 14 per day, while men workers (odd coolies and packers) earn Re. 1 to Rs. 1|4|- per day. *Blowers* are known as " contractors " also, and the terms of their contract are as follows : Each contractor is allowed to engage at his cost a helper and also a *rulsawala* (who works at the necking furnace). The *rulsawala* is paid partly by the factory and partly by the blower under whom he works. Generally blowers are paid Rs. 45 per month for the services of the *rulsawala* over and above what they earn themselves. After receiving payment from the factory each blower pays to his helper and the *rulsawala* as per agreement. Average gross earnings of a blower are Rs. 400 per mensem out of which he pays Rs. 75 per mensem each to his helper and *rulsawala*. Thus, on the average, his net earnings are about Rs. 250 per month. There is hardly any difference these days between the rates of wages for labour employed through contractors and that employed directly. Moreover, in these factories labour for same or similar occupations is employed either in one way or the other and not in both the ways simultaneously and hence there is no opportunity for comparing rates of wages.

Rationale of Wage-fixation.—Wages are fixed in most cases by the interaction of the laws of supply and demand. All depends upon the availability of labour and also of coal for if supplies of coal were stopped, demand for labour would fall and wages would go down. The skill of the workers is an important though not the determining factor in fixnig the wages of technical staff like the *mistry* in charge, or the workshop mistry. As for dearness allowance, the proprietors say that the wages include it at the rate of As. 2 per rupee. Thus, if a worker is paid Rs. 2|4|- per day, his basic wage would be Rs. 2 per day and a dearness allowance of As. 4 per day.

Overtime, fines, etc.—Only in two factories do workers put in 'overtime' and the method of calculation and payment is different. In one, if a person works for one hour, he is paid for two hours. If the worker puts in more than one hour's but less than 4 hours' over-time, he is paid half the day's wages; but if he works overtime for more than 4 hours, he gets full day's pay for that. All payments are made in *cash, daily*. In the other factory, overtime slips are issued to the workers and these are paid for at the time of monthly payment at the rates laid down in the Factories Act. No registers are maintained in either case and enquiry revealed that in practice overtime was compulsory. Fines are not imposed anywhere and no deductions are being made. Wages are paid monthly and by the 7th of the month following, but advances are usually made fortnightly and these are taken into account when payments are finally made at the end of the wage period. No interest for such advance is charged. Most of the workers are daily wage earners, in the sense that no payment is made for the days when they are absent. Only the superior technical staff (*mistry* in charge, or the workshop mistry) is paid for the whole month and no deductions are made for authorised absence. Application for leave is seldom rejected.

Holidays.—Glass factories are exempt from the provisions of Section 35 of the Factories Act and they work continuously for all the days of the month. The only condition attached to the grant of this privilege is that they must allow one paid holiday to each worker after 14 days of work. Evasion even of this rule is not rare, and the files in the Office of the Chief Inspector of Factories revealed that at one time or other all of them had been prosecuted for the breach of this rule successfully. By an ingenious manipulation of the attendance register, they make inspection difficult and the evasion can be detected rarely. In one case it was found that one page of the attendance register was set apart for each blower and his staff. It often happens that the same worker (Moulder or Gangman) works under different blowers in the course of one month and hence his name is entered on several pages and attendance marked there. It is, therefore, clear that one cannot find out either the actual earnings of a worker or whether he has had a paid holiday after fourteen days of work.

III.—Working Conditions.

Hours and shifts.—Two or three shifts are being worked and each is of 8 hours' duration. This is for the blowers and his staff and the firemen. Only one factory allows a rest interval of one hour after four hours of work and the spreadover in this case is 8|9. Hours of these shifts are :—

(i) *When three shifts are worked* :—

From 12 midnight to 8 a.m. ; 8 a.m. to 4 p.m. ; and 4 p.m. to 12 midnight.

(ii) When there are 2 shifts without rest :—

From 12 midnight to 8 a.m. ; and from 8 a.m. to 4 p.m.

(iii) When there are 2 shifts with rest :—

(a) 9 a.m. to 1 p.m. ; 2 p.m. to 6 p.m.

(b) 8 p.m. to 12 midnight ; 1 a.m. to 5 a.m.

There is, besides the above, one *general* shift for the *mistry* in charge, workshop mistry, office staff, packers and sorters. This is of 10 hours' duration inclusive of an hour's rest between 8 a.m. and 6 p.m.

Ventilation, etc.—Glass factories are open from all sides and the workers work near the furnaces and the annealing chamber. Dirt and dust found in other factories are entirely absent. The entire area is generally clean and

flooring space is adequate. The only trouble is that workers are liable to fall victims to severe cold and even pneumonia in winter or rainy season. Sometimes during the rainy season workers rush out of the shed and into the rain when the heat of the furnace becomes intolerable and such exposure has often caused them to remain confined to bed for weeks together. There are no shelters for workers anywhere.

IV.—Welfare Activities.

Water is supplied by tube-well arrangement but the number of taps in some cases is inadequate. Sanitary conditions were unsatisfactory in the two factories situated in the town of Amritsar but in those at Khasa things were much better. It was found that the number of urinals and latrines was inadequate. The factory rules require 5 latrines for 100 workers and this requirement is scarcely satisfied anywhere. Sweepers are usually employed but the urinals and latrines in a majority of the factories are very dirty. The two glass factories at Khasa have formed an Association along with two other factories and these four factories contribute equally towards the cost of the maintenance of a dispensary. This dispensary is under the charge of a qualified doctor (M.B., B.S.) and is well-equipped. Cases treated are mostly those of cuts, burns and malaria. The Secretary of the Amritsar Labour Federation thinks that proper care of workers is not being taken and the doctor usually keeps himself busy attending upon the employes and their families! Despite the fact that a regular dispensary is being maintained, there is no periodical medical examination of workers. In the other two factories, only first-aid facilities are provided though one of the employers claimed that he had arranged for weekly visits by a qualified doctor.

In no factory have arrangements been made for canteens or adult education, or grain-shops. In one factory only, arrangements have been made for supplying grain at cheap rates to the workers. Some adjoining land has been set apart for growing *vegetables* and these are distributed to the workers *free of cost.*

V.—Housing Accommodation.

Before giving a description of the housing provided, it would be better to point out that since workers are mostly brought from the U.P. or Bengal, they have to be provided with accommodation to insure their continuous services. Even where no houses are owned by the firm, small buildings are rented and workers are housed therein. Local workers are not provided accommodation in any of the concerns. Technical staff is given preference over others. In one factory alone a compensatory house allowance is paid to those workers who are not provided with housing accommodation and the amount paid is about Rs. 2 p.m. The proprietors have no housing policy of their own. The present housing arrangements are only meant as a temptation to workers in order that they may not leave the concern. As already said there is a shortage of labour in this Province and, therefore all means fair or foul are adopted to collect workmen. It is very doubtful whether the present arrangements will continue when the problem of labour shortage has eased. The total number of workers in these four factories at present is 569 and out of these 240 or 42.4 per cent. are provided accommodation. All this housing is provided *free of rent.* The less said about these houses the better. Invariably single room tenements (8 ft. $\times$ 10 ft.) are provided. Though the walls are *pucca,* flooring is generally of mud, and the roofs in one case were found to be made inflammable thatch. Elsewhere proofing also is pucca brickwork. Latrines are usually built at some distance from these tenements but in one factory which is situated in the town proper, no latrines were provided and workers were expected to go to the open fields. For the superior technical workers quarters with one room a verandah and a kitchen were provided but it is

interesting that no latrines had been built in the houses and the occupants were expected to use common latrines. Flooring in these houses was *pucca*. In one factory the employer claimed that he had built clean *pucca* rooms (10 ft. × 12 ft.) with verandah for his workers. On inspection it was found that the so-called houses were actually godowns without any closed doors and ventilators, the only difference between these and over godowns was that men rather than silica were dumped here ! In a single room 8 ft. × 10 ft., from 3 to 4 workers lived and cooked food within the room. The result can be imagined. Sooted walls and ceiling were noticed everywhere. Rooms presented a congested and dirty appearance. There was only one solitary exception where workers were somewhat clean. It was obvious that rooms had not been white-washed for a long time. Sub-letting was not reported anywhere. Sanitation was very bad and a dead drain full of mud and dirty water in front of the rooms was not an uncommon sight. It is no wonder that malaria was the most prevalent disease. Besides, there were no bath-rooms anywhere and female workers both bathed in the open under the taps.

VI.—Trade Unions and Strikes.

Labour in the glass industry in this Province is characterised by the complete absence of organisation either permanent or *ad hoc*, and this is largely due to the *de facto* seasonal character of the industry. Besides, labour is mostly brought from outside the Province and the binding force of common language is sometimes absent. Further, these factories are generally situated outside the town proper and in two cases at a distance of 9 *long* miles. This prevents contact between the trade union of the city and the workers in these factories. Thus unless these concerns work througout the year and labour turnover is reduced, there are not many chances of any union worth the name developing among the workers. There have been no strikes in these factories and in view of the above it is not surprising.

VII.—Factory Legislation.

All the concerns come under the Factories Act and as to whether the provisions of the Act are complied with, one may do well to refer to the files maintained in the Office of the Chief Inspector of Factories. Every year, prosecutions are launched for breach of some section or the other of the Act but mostly for working unauthorised overtime, giving the workers no paid holiday after 14 days of continuous work or for keeping urinals and latrines very dirty. As for the steps taken to acquaint the staff with the provisions of these Acts, huge charts giving extracts from them sometimes in English only and often in Urdu also were found hanging on the walls. However, this has failed to serve the purpose owing to the workers' illiteracy. The workers were questioned on the point and it was found that except the technical people, the ordinary worker is hardly aware of the existance of such Acts. Besides, even those who have heard of a thing called " compensation " did not know about the extent of their rights and the machinery to enforce it. A few who knew the whole process had no mind to go to the court for fear of being thrown out of employment.

Occupational Disease.—No information about the existence or extent of occupational diseases was available. It is obvious that unless there is a periodical medical examination of workers by an independent doctor, there is no possibility of detecting the origin of an industrial disease. There is no clear demarcation between occupational and natural diseases. The diseases which blowers are likely to develop are asthma, bronchitis, and other lung diseases including consumption. The incidence of asthma was pretty high and a substantial minority of blowers were suffering from it.

Accidents.—One fatal accident occurred in 1942 in one of the factories. The facts of the case were that one Ram Harak, aged 50 years, was working as

a coal-man for the gas-producer on Rs. 15 per mensem. His duty was to carry coal to the gas-producer by climbing up the wooden ladder provided for the purpose. One day Ram Harak had brought a sufficient quantity of coal to the gas-producer which blocked the passage to its feeding hole. As he began to remove the coal on one side, his foot slipped and he fell down on the wooden ladder. One of its sides struck against his stomach and pierced it. His intestines came out and he died while being removed to hospital. According to the attendance register the deceased was employed beyond prescribed hours inasmuch as his hours of work were shown from 8 a.m. to 12 noon and from 1 p.m. to 5 p.m., whereas the accident took place at 8 p.m. The Manager explained that the working hours of the deceased along with his other co-workers were wrongly recorded by the time-keeper in the attendance register, and actually he worked in the second shift from 4 p.m. to 12 midnight with effect from 26th July 1942. He also stated that the deceased was in the habit of taking intoxicating drugs and the accident might have taken place while he was under the influence of the drug. It is not known whether any compensation was paid. This was the only accident reported so far. The most common accidents are burns and cuts and in every factory there are usually a dozen cases of burns and more of cuts every month, mostly of a minor character but sometimes serious also. If cases of burns are not treated properly in the very beginning, these develop into wounds, cure becomes difficult and the period of disability long. The Secretary of the Amritsar Labour Federation alleged that when serious cases of burns occurred, the victims were packed off after paying third class and a little money, and since workers went back to their native places in the U. P. or Bengal, detection became impossible. The presumption was in favour of this view, and the contention of employers that there never was an accident does not carry conviction.

Inadequacy of the inspectorate was stressed very strongly by the Secretary of the Amritsar Labour Federation. There are six districts in the Amritsar circle and for the whole circle there is one Inspector of Factories who is also the Superintendent of Industries and Inspector of Wages. Even annual inspection of each factory becomes impossible and, therefore, generally provisions of the Payment of Wages Act are disregarded and wages are paid at the discretion of the Management. When occupiers or directors are prosecuted, the fines imposed are ridiculously low, from Rs. 2 to Rs. 5, for each offence in most cases.

CHAPTER VII.—MADRAS AND BANGALORE.

Two factories were selected for investigation in the South, one at Tondiarpet, Madras, and another at Bangalore. The Madras factory had not been working for some time and was recently taken over and revived by a new management in July 1944. This condition of infancy is partly responsible for the lack of information on several points caused by incomplete material in the records. On the other hand, the Bangalore factory, managed by a firm reputed for efficient management of a number of new glass factories in several centres has been able to establish a strong labour force since 1938 and the data obtained were much more reliable. In 1943, the total employment in the glass industry in Madras was 747, and though recent figures are not available, it could not have exceeded 1,000 by now. The Madras factory investigated had 392 workers on its register in August 1944, and it was stated that the total number sometimes went up to as much as 500. The Bangalore factory was of almost the same size, having a total number of 331 employees on its rolls in November 1944, and was the only modern glass factory in the Mysore State, though indigenous bangle manufacture on a very small scale was also carried on in Kolar, Hassan and one or two other districts.

I.—MADRAS.

This factory uses coal for its furnaces and electricity for running the cutting, grinding and other machinery. Shortage of coal and irregular supplies, of even the quantities of it available have, according to the management, resulted in the factory having to be closed from time to time and this has caused a fall of output as well as irregularity of employment for workers.

A.—Employment.

The factory employed, on an average, 392 workers per day in August 1944, of whom 182 were men, 160 women, and 50 children. The total number on rolls on some days goes up to 500. As the concern is started very recently, they have not devised any system of classifying workers as permanent and temporary nor any system of maintaining service records or registration cards. All labour is temporary, and the unskilled labour is treated as casual labour, to be employed in the numbers required from time to time by the factory. There are no time-scales or systems of graded promotion. There is no system of apprenticeship either. Most of the skilled labour is drawn from outside, particularly Poona. This labour is said to be very unsteady and migratory in character, going from concern to concern with the attraction of higher wages.

Labour Turnover.—Figures for turnover are exceedingly difficult to obtain, as the registers and pay-rolls maintained are highly defective. Cases of dismissal and retirement are not found anywhere, and the cases of workers who have actually left, to the extent recorded at all, are shown as all being voluntary. The average daily employment in August 1944 was 342. Out of these, 61 left the establishment in the month. Hence the monthly quit-rate was 17.8 per cent. These figures exclude boys, a large number of whom are sometimes temporarily employed. The high proportion of labour turnover thus indicated is explained, so far as skilled labourers are concerned, as due to their desire to return to their native place in some cases, and in others due to the tendency to go from concern to concern on an offer of higher wages. Among unskilled workers, the tendency is partly due to workers going for other work in the city when available, because there is always the fear of the factory being shut down due to shortage of coal.

Absenteeism.—The calculation of absenteeism in this concern has again proved to be a matter of great difficulty owing to the unsatisfactory condition of the registers. The names of a large number of persons are kept on rolls, out of whom some may have to go without work as the concern does not choose to employ them on certain days, and these people are marked as absent. Again, workers' names are not struck off rolls as soon as they leave the concern, but are kept there and those who have left are marked absent! These factors vitiate the figures for absenteeism, and these have, therefore, to be treated as useful only to a very limited extent. The total number of possible working days, obtained by adding up the number of days for which each person's name was on the rolls, was 7,999 for August 1944. Of these, the number of working days lost due to absence was 1,706. This works out at 21.32 per cent. of absenteeism. This high percentage of absenteeism in the concern can be explained by two factors already touched upon;

(i) the fact that the management itself employs workers on each day according to its requirements ; and

(ii) the fact that due to the fear of a shut-down, workers choose to take up other work as and when available. Other causes are mainly domestic, like sickness and religious ceremonies.

Recruitment of labour.—The concern recruits its labour directly and does not make use of the services of any middlemen. The skilled labour is brought

from outside areas by the management themselves, and the labourers are paid travelling allowance from their native places. Unskilled labour comes to the factory of its own accord, new labourers being brought by people already working. There are no standing orders governing the relations between employers and workers. There is no Labour Officer. One of the Assistant Managers, it is said, specially looks into the requirements of labourers and their grievances. It was stated that every week a meeting was held between the management and representatives of workers, who were chosen one from each section by the workers themselves to redress grievances of workers.

B.—Wages and Earnings.

In this concern, all wages are paid at monthly rates, calculated on the basis of all the days in the month including Sundays and other holidays. Thus, the calculation of amounts payable for workers in August 1944 was on the basis of 31 days in the month, though the concern worked only for 26 days in the particular month. The total earnings (gross as well as net) per month for the important occupations in the concern are given below :—

TABLE 35.

Earnings of Main Workers.

	Minimum	Maximum	Average.
	Rs.	Rs.	Rs. A. P.
(1) Mistries	90	150	122 0 0
(2) Blowers	75	90	86 0 0
(3) Helpers	35	50	47 0 0
(4) Bubblers	25	50	36 9 7
(5) Neck-makers	70	75	71 10 8
(6) Liners	25	50	32 8 0
(7) Men coolies	15	25	17 10 8
(8) Women coolies	14	15	14 5 0
(9) Boy coolies, etc.	12	20	19 5 0
(10) Melters	24	35	33 14 0

All the labourers are employed directly by the concern, there being no contract labour. All the rates are on a time basis. But, according to the employers, each group of skilled workers (blowers, etc.) are set a particular task per day, say, turning out 3 gross of bottles. If their output exceeds the quota, they are paid proportionately higher wages. Or, alternately, they can leave the factory before time if they complete their work earlier. As the payment of extra wages for higher output is not recorded in the pay-rolls, it must be presumed that workers completing their task earlier prefer leisure to a little more money. Wages are paid once a month, the date of payment being the 7th of the subsequent month. Advances are given once a week to women and coolies, and once a fortnight to the skilled workers up to half the wages earned, and these are deducted at the end when the wages are paid. There are no other deductions. There appear to be very few cases of fines here and there. At present there is no system of deducting from wages for late attendance, etc.; if a worker is habitually late or inefficient, he is simply sent out. As the concern has been started only recently, they have not introduced any dearness allowance and the wage-rates are supposed to be sufficiently high for war conditions. The management contemplates the payment of a bonus after one year's working, according to the profits of the concern. Overtime work, i.e., all work done beyond the regular working hours on any day, or work done on Sundays, is paid for at the same rate as ordinary work. The payment made for overtime work does not seem to be regularly recorded in any separate register, or on the workers' cards.

C.—Working Conditions.

There are two shifts : day, and night. The working hours for the day shift are, 8-30 a.m. to 12-30 p.m., and 1-30 p.m. to 6 p.m. : 8-1|2 hours work, involving a spreadover of 9-1|2 hours. The night shift begins at 6-30 p.m., and continues till 9 p.m., and after a period of rest for one hour, begins again at 10 p.m. and goes on till 2-30 a.m. No women are employed in the night shift. Wages paid for night and day shifts are the same, but the working hours for the night shift are only 7 and the spreadover 8 hours.

The factory is situated in a large open space surrounded by a compound wall, and the sheds are all without walls. Hence there is plenty of ventilation and natural light, and at nights electric light is used. While the floor area is ample. it appeared that in certain sections, particularly grinding, washing and cutting, there was a great deal of crowding. Sufficient attention does not also seem to have been paid to order and neatness in the factory, many things being left here and there in heaps, and a lot of broken glass littered over the floor. The management say that workers are provided with foot-wear as protection, but this was not noticed in the case of majority of the workers. Latrines and urinals are provided adequately to meet the requirements of the Factories Act. Two water-taps in the open are used by workers. Cool water is said to be supplied during summer. There are no bath-rooms. There are also no shelters for rest, or for taking tiffin, but the construction of these is proposed. At present, workers use the open space and the shade of trees in the compound for this purpose.

There is no dispensary; there is only a first-aid box. A doctor, paid by the firm, periodically visits the factory and is available for consultation. But there is no periodical medical examination of all workers. As the concern is very recent, no cases of " occupational diseases " have so far been observed. Canteens, creches, schools for adults and children, are all absent. There is no grain shop either, but the management helps the workers in obtaining ration-cards for kerosene and rice.

D.—Housing.

The management has taken a house for rent for Rs. 40 and has provided in it residential facilities for the skilled staff recruited from outside. No rent is collected from these workers. The management attach great value to the provision of residential facilities for outside labour. The construction for residential quarters for these workers, though contemplated, could not be carried out because of lack of cement. Most of the unskilled workers, men and women come from the neighbourhood and there are large groups of workers' sheds in the vicinity. Some of these are owned and have been constructed by the workers themselves on land leased for a nominal rent. These sheds are small in size, built of mud-walls, with thatched roofing, mostly in coconut groves. These workers' colonies are decidedly more healthly than the city slums.

II.—Bangalore.

The Bangalore factory (Mysore Glass and Enamel Works) was constructed in 1938 and began functioning in 1939. Planned and constructed on up-to-date lines it is located in the outskirts of Bangalore City, easily accessible by road, and within half a mile of the railway station of Yeshwantpur on the Mysore Railways. Coal was till recently used for the furnace, but due to its shortage, irregular supplies and poor quality, the factory had to be closed for nearly seven months from 26th August to December 1944. During this period, the furnace was reconstructed so as to use producer-gas from charcoal and coconut-shell. The factory has two furnaces each of which will be used alternatively, the average life of the furnace being about a year. The spare furnace which is now idle is being refitted and equipped for the use of gas. Electricity

is purchased from the local supply corporation. The furnace is a pot furnace, which is convenient for a medium supply plant producing different varieties of glass, because different pots could be used for different varieties and pots could be charged in sequence, so that molten glass is available continually to the blowers. The concern has developed its own machinery operated by hand for machine-blowing of bottles, jars, tumblers, etc., and for the making of necks. For the making of things like chimneys which have to be open at both ends, mouth-blowing is more common. A small machine shop is organized for making and repairing these machines.

A.—Employment.

The average daily number of workers employed in the factory was 277 in January 1944 and 331 in November 1944. All workers are employed directly on time wages. There are no clear records of service. Roughly speaking, it may be stated that 40 per cent. of the workers are people with less than one year's experience, while 60 per cent. have put in service of between one and five years or more in this concern. Some might have had more experience in sister concerns managed by the same Managing Agents elsewhere.

Workers are classified as " permanent ", " temporary " and " casual". The standing orders define " permanent " workers as those confirmed by the Superintendent, given permanent tickets, and entered on the muster roll of permanent employees. In practice, workers are taken on trial on daily wages, kept temporary for 4 or 5 months, and if they stick to the concern and prove satisfactory, made permanent on a monthly salary. The distinction between permanent and temporary workers, thus turns out to be one between monthly and daily paid people. Out of 332 persons on the rolls at present, 164 are permanent and 168 temporary, which shows roughly 50 per cent. in each category. Permanent workers are entitled ordinarily to 14 days' notice for termination of service, and they have also to give similar notice; they enjoy weekly holidays (Sundays) and 27 half-holidays for festivals, etc., as paid holidays. They are entitled to Provident Fund, if they put in three years' service when the fund is started. Temporary workers are entitled only to three days' notice and they do not get any holidays with pay and are not entitled to contribute to the Provident Fund. A few people are taken as apprentices without pay, but on a nominal allowance. On completion of training they may be absorbed either in the concern or any one of the sister concerns. The number of apprentices thus trained and absorbed either here or elsewhere in the last five years is about 50. There is no system of graded or time-scale promotion. Increments and promotions are given according to efficiency at the discretion of the management. In fact, during the last five years, everyone has been getting an increment every year.

Turnover.—The following figures show the extent of labour turnover in the concern :—

TABLE 36.
Labour Turnover.

Average daily number of workers employed during the month.		Permanent		Total No. of workers who left during the month.		Total.	%
Month	No.	Dismissal	Voluntary	Dismissal	Voluntary.		
1944							
January	277	2	4	5	1	12	4·3
February	277	1	9	2	9	21	7·5
March	277	5	14	10	1	30	10·0
April	277	17	4	24	..	45	16·0
May	277	5	22	2	..	29	10·7

The percentage turnover in the above months varied from 4.3 to 16. But the high figures of turnover during March, April and May were due to a number of workers being sent out due to increasing coal shortage, and others being transferred to sister concerns. Under normal circumstances, it can be taken that the January 1944 figure of about 4.5 per cent. was representative.

The causes of turnover are several. Dismissals are due mainly to long absence without leave, long sickness, and stray cases of indiscipline, and theft. Removal for long absence and due being "played off", *i.e.*, alternately lack of work, were particularly numerous in April 1944. Cases of voluntary termination of services were due to leaving the concern with notice, transfer of services to other concerns, or maternity. One of the reasons for turnover in this area is the attractiveness of employment in military works and in textile mills in the area, where wages up to Rs. 1-4-0 a day plus dearness allowance upto Rs. 15 per month are paid. These lead to absenteeism in the first instance and turnover in the end.

Absenteeism.—The total number of possible working days was 10,342, in January 1944 and 9,222 in February 1944; days lost by absence were 1,074 and 953 in these two months respectively. The percentage of absenteeism thus works out at 9.6 and 9.7 in these two months respectively. The causes of absenteeism are sickness and other domestic contingencies; attraction of higher wages under contractors in military works; and high earnings in workers' families due to higher wages, allowances, and better employment in war-time as compared to normal times. It was stated that many workers' families were earning up to Rs. 100, a month while their expenditure was limited by rationing and price control of essential articles. They were, therefore, in a position to save, or take more leisure. Many steps are taken in this concern to discourage absenteeism. Absence without leave is penalised; regularity of attendance is made a condition for the payment of bonuses; a separate allowance is given for those who are regular in attendance.

Recruitment of Labour.—All labour is recruited directly without the intervention of any middlemen. The Works Manager interviews every worker personally before employment. A part of the skilled labour is obtained from Ogalewadi paying them 25 per cent. more than what they get there and also travelling expenses to and fro. About 20 per cent. of the skilled labour comes from outside.

Relations between employers and labourers.—These are governed by the standing orders framed under the Mysore Labour Act, which deal clearly with all matters like classification, shifts, attendance, and late coming, leave, holidays, punishments, disciplinary act, termination of employment, wages, etc. There is no separate Labour Officer. But there is a Labour Association formed under the above Act, which is expected to function as a channel for representation of workers' interests. In this particular case, the elected President, of the Labour Association happens to be the Works Manager himself. In addition, there is a Works Advisory Committee, with the Managing Agent as the President and fifteen members—one being an outsider, a member of the public interested in labour welfare—and half the remaining members from the management and the workers respectively. A meeting of this Committee is held once a week when all matters of common interest are freely discussed. This organization forms a link between the workers and employers and promotes cordial relations between them.

B.—Wages and Earnings.

The rates of wages are monthly for all permanent workers and daily for temporary workers. The rates of wages, and average monthly earnings for principal occupations are shown in the following table :—

TABLE 37.

Basic Wages and Total Earnings (January 1944).

Category.	Basic Wage Rate Average p. m.	Total Earnings (average).
	Rs. A. P.	Rs. A. P.
Foremen	46 0 0	64 9 7
Firemen	37 0 0	46 0 0
Machine Operators	36 4 0	43 12 0
Mouth Blowers	53 5 4	72 0 0
Bubblers	11 0 0	21 13 4
Helpers or Carriers	7 10 0	19 6 0
Screeners, Grinders, etc. (women)	9 12 6	18 4 0
Stitchers, wrappers, etc.	14 4 0	28 7 6
Dippers	12 15 8	22 2 0
Picklers	10 7 9	20 7 9

As can be seen from the table, while the basic wage-rates are comparatively low, as they have remained unaltered since 1939, the average earnings are much higher due to the payment of dearness efficiency and other allowances. Wages are paid once a month, in the second week of the subsequent month, usually on the second Saturday. Dearness allowance is paid a week later. No advances are given as a matter of course during the month, but as loans in stray cases to be recovered in small instalments.

Dearness allowance is paid at the following rates :—

(i) Rs. 7-8-0 p.m. to those getting upto Rs. 25.
(ii) Rs. 10-0-0 p.m. to those drawing between Rs. 25 & 50.
(iii) Rs. 12-8-0 p.m. to those drawing between Rs. 50 & 100.
(iv) 10 per cent. of the salary for those drawing Rs. 100 and more.

An efficiency allowance is given at the end of each month according to the discretion of the management up to Rs. 10 per mensem; and special allowances are given for cases of hard work or strain. In attendance allowance of Re. 1 per month is given to all those who attend regularly throughout the month and drawing a salary less than Rs. 15 per month. A bonus is paid at the end of the year; it was paid at the rate of a month's salary during 1941-42 and a salary of 1-1|2 months during 1942-43. Half of the bonus for the latter year was given in the shape of standard cloth, to prevent its dissipation in drink, etc. A special bonus is also paid to those who attend regularly throughout the year. Regularity of attendance is insisted upon as a condition for most of these allowances and bonuses. Absence without permission entails loss of the attendance allowances as well as a cut in dearness allowance in proportion to the number of working days absent.

Work in excess of the scheduled hours and work on Sunday, except where a substitute holiday is given, is treated as overtime and paid at 1-1|4 times the normal rates. Overtime is recorded in the workers card, the muster roll, as well as in separate overtime Register and is available for inspection. Overtime is not compulsory but is usually insisted upon in practice.

Late attendance above five minutes is recorded in the card and totalled up at the end of the month; 1-1|4 times the normal wages is deducted for this period. For absence without leave also, 1-1|4 times the wages is deducted. The only other deductions are small fines. No separate fund, however, is maintained for these.

C.—Working Conditions.

There are two shifts : day and night. The factory works from 8-30 a.m. to 12-30 p.m. and from 2 p.m. to 6-30 p.m., 12-30 p.m. to 2 p.m. being the lunch interval. There is a rest interval of 20 minutes in each of the sessions, viz., 10-40 to 11 a.m. and 3-10 to 3-30 p.m. to provide relaxation

because blowing involves team-work of a continuous and strenuous nature. During night again the working hours are arranged similarly, 8-30 to 12-30 p.m. and 2 to 6-30 a.m. with similar rest intervals. The spreadover, in each case, is 10 hours. The night shift comprises work only for the furnace and blowing sections, about 20 people being engaged on it.

The factory is constructed on modern lines, is well ventilated and provides ample floor space. The different sections are housed in different buildings, all connected by good roads and surrounded by a beautiful garden. The roofing is high in every building and ample natural and artificial lighting is provided. Particular care is taken to preserve cleanliness and orderliness everywhere.

D.—Welfare Activities.

Great emphasis has been laid on welfare since the inception of the concern ; and it can be safely said that the measures taken are extremely satisfactory for a medium-sized concern like this. Separate latrines are provided near the residential quarters for men and women : three scavengers are employed to keep them clean. Two bore-wells, a well with pump, and two taps of filtered water are available in the compound. A dispensary with a full-time paid compounder and a stock of medicines is maintained, and a part-time Doctor visits once a week and provides advice for the workers and their families. The system of medicine followed is allopathic. A canteen is run by a caterer who is provided with a clean neat building, and the utensils and provisions needed. Meals, coffee, tea and light refreshments are provided. About 25 workers take their meals there while a large number take coffee, tiffin, etc. No caste restrictions are observed. The charges are moderate and are equal to those elsewhere in the city. A very high standard of cleanliness is maintained. The caterer pays only a nominal rent to the works. The activities of the canteen are to be expanded when more milk and provisions are available. The provision of a creche is contemplated. A school building is provided and a primary school is run for the benefit of the children of residential workers, the salary of the teacher being paid by the concern. Literacy classes are run at night for the benefit of adult workers. A grain shop is run, started two years ago. It sells fine and coarse rice, *cholam*, *ragi* and other food stuffs, and cheap cloth. Shelters for rest during intervals and places for parking cycles are also provided. The management are also contemplating the provision of a cooling beverage like barley water or butter milk to those who work near the furnace.

E.—Housing.

Residential quarters are provided for the essential services in the concern for nearly sixty families. As these people have to be available all the time near the works and as they are also outsiders some of whom are untouchables from other areas, provision of housing is considered absolutely necessary. The houses provided are of three types mainly :—

A Type—four rooms with a total area of 780 sq.ft. provided with electric lights and water. Rent Rs. 3-8-0 p.m.

B Type—Two rooms with a total area of 300 sq. ft. with lights. Rent Rs. 1-12-0 per mensem.

C Type—One room with an area of 200 sq. ft. with a verandah with lights. Rent Rs. 1-4-0 p.m.

The rents charged are nominal. The Company contemplates the extension of the housing scheme as soon as possible, so as to accommodate at least 50 per cent. of its workers. The present housing scheme has cost them Rs. 46,000. The other workers, most of them local, drawn from the city or neighbouring villages two or three miles off, live in rented houses or in own houses. Details regarding their housing conditions are not known.

F.—Factory Legislation.

The Mysore Factories Act, the Mysore Workmen's Compensation Act, the Mysore Maternity Benefit Act, and other Acts are in force here and their provisions are satisfactorily observed. Inspection by the Inspector of Factories does not appear to be very frequent here. Only two remarks are found in the remarks book, one of which pointed out a flaw in the manner of getting boys certified by the Doctor; the flaw was rectified. The other was a suggestion to the effect that flush-out latrines and two urinals may be constructed. The Inspector also expresses satisfaction at the clean and neat maintenance of the factory. There have been no accidents or cases of compensation. Under the Maternity Benefit Act in six cases two months' wages were paid ranging from Rs. 16 upto Rs. 18 in each case, in 1943. In 1944, four cases were paid benefit. The Act has not so far discouraged the employment of women.

G.—Indebtedness.

Workers are not indebted to any substantial extent. Many of them are earning well, almost all the members in the family being employed and getting high wages. A family's monthly income may go up to Rs. 100 while its expenditure on essentials has been kept down by rationing and price control. Hence many of them makes savings which are utilized for buying small property or paying off ancestral debts. Current debts are small, mostly advances up to Rs. 50 from the company to be repaid in small instalments without any interest. There is no evidence of indebtedness to outside agencies. Recently a Co-operative Society has been formed to meet the needs of workers in this direction.

H.—Provident Fund.

There was a Provident Fund formerly but it had to be closed when the works was closed due to coal shortage. It is proposed to revive it, those of the workers who have put in more than three years' service being eligible and paying 1 anna in the rupee from their wages and the management making a similar contribution.

From every point of view, technical as well as organizational, the factory is well-planned and efficiently organized. The records and registers are kept in a very satisfactory condition. Labour conditions here appear to be highly satisfactory. Relations between workers and employers are very cordial, while discipline is well maintained. Having attained a very high standard of quality in production, the concern is confident of working satisfactorily in competition with foreign competition after the War and of maintaining its present level of employment. But the management feel that it is Government's duty to see that the prosperity of the industry is not hampered by factors like unfavourable railway rates. While they are in general very sympathetic towards progressive labour legislation and social security measures, they feel that these should not raise their cost of production relative to that of foreign competitors; in case they do, they point out that adequate protection will have to be given.

CHAPTER VIII.—SUMMARY AND CONCLUSIONS

The beginnings of the modern glass industry in India date back to the first decade of the twentieth century and it received a great impetus in the World War I, when the cessation of imports from the western countries led to the establishment of a number of factories in the country. The technical personnel to man the new works was provided by the Paisa Fund Glass Works of Telegaon—a public institution which trained young men as technologists, blowers, helpers, etc., with the help of foreign experts. These persons, equipped with technical knowledge and managerial experience promoted a number of flourishing concerns in other areas. The denial of protection to the industry

hit it pretty hard in the period intervening between the two wars when continental producers dumped their goods here, but the resilience of the industry enabled it to tide over its difficulties. The one branch of the industry which has always beaten the foreigner is the bangle manufacture at Firozabad. The value of glassware manufactured in India increased from Rs. 40 lakhs in 1919 to Rs. 120 lakhs in 1939. The World War II, has given a powerful fillip to the glass industry and while no accurate figures for current production are available, it may be said that the volume of production must have at least doubled since 1939. The imports, on the other hand, have dwindled from Rs. 1,25,12,000 in 1938-39 to Rs. 15,45,000 in 1943-44, while the total employment in British Indian glass factories has gone up from 8,934 in 1939 to 18,328 in 1943.

Employment.—The industry falls into three broad divisions according to the nature of goods produced, viz., (i) bangles, (ii) sheet glass and (iii) hollow-ware. The main types of workers in glass bangle factories are *tarwala* (thread-man), *lelanwala* (roller-man), *lom bananewala* (parison-maker), *lom donewala* (parison carrier), *kataiya* (cutter) and *ginaiya* (counter). In the sheet-glass factory, besides technical hands 1 like engineers, fitters, firemen, etc., there are bottom mechinists who work as helpers to machines drawing glass into sheet, and top machanists who take out the annealed sheets and pass them on to sheet-cutters. Sheet-cutters are the best-paid workers in the factory. In the hollow-ware factories the key place is occupied by blowers except in factories where the blowing process has been mechanized. The blowers are assisted by moulders, gauge-men and the line-men employed for the ancillary processes of holding the mould in position, carrying the blown-ware to the annealing chamber and arranging the ware in drums for annealing. There are, of course, some unskilled workers—men and women—for odd jobs like cullet sorting, packing, etc. In 1944, when our survey of labour conditions in the glass industry was conducted, there were 75 regulated factories in British India employing about 18,000 workers. Of these, we investigated 54 factories employing 10,682 workers in all. Besides this, 1,000 Firozabad (U.P.) cottage-shop workers, 1,453 employees of the Ogale Glass Works at Ogalewadi (Aundh State, Bombay), and 331 employees of the Mysore Glass and Enamel Works at Bangalore were also covered. Thus, the total number of workers covered in the whole of India was 13,466 out of an estimated total[1] of 28,000.

The industry presents an interesting panorama with *shishgars* manufacturing bangles and others making hollow-ware on small scale in the old traditional ways at one end, and huge glassware factories producing modern goods at the other. The operations of the former are governed by no law whatever. About 6,000 workers are employed in the Firozabad cottage shops alone, of which about 2,500 may be children of 6 to 10 years of age. The justification of the employment of children is sought in the " apprenticeship " argument, but one cannot be sure that the child apprentice working under the conditions prevailing in these shops, would live long enough to reap the fruits of his early training ! The joining, cutting, enamelling and painting shops employ on an average 5 persons each. Workers are recruited usually from amongst the relatives of the employer, but skilled workers like painters have often to be recruited from outside the circle of relatives. In the cottage shops, due to strong personal ties between the workers and the employer, labour turnover is discouraged but due to the prevalence of the drink evil, absenteeism among the workers is high.

The bigger factories recruit workers directly or through paid agents. The problem of recruitment has been one of insuperable difficulties for the employers. Within the last 5 years, employment in the regulated glass factories in

[1]See Appendix VII.

British India has gone up by 105 per cent. The number of workers in the Bombay and Bengal factories has gone up by 221 and 119 per cent. respectively since 1939. There has been virtually a scramble for skilled and semi-skilled workers who are recruited from areas hundreds of miles away from the factories. There has also been considerable turnover of labour among the factories *inter se* in places like Bombay, Calcutta, Firozabad (U.P.) and Amritsar (Punjab), brought about by the efforts of employers to entice away workers of other factories on the payment of advances and promise of better wages. A considerable amount of involuntary unemployment and turnover is caused by irregular supplies of coal and raw materials. This high turnover of labour is also reflected in the figures for the length of service of operatives. In factories established recently, the length of service of workers is naturally small but even in the leading concerns, established decades age, 40 to 50 per cent. of the workers have less than a year's service to their credit.

Wages and Earnings.—The general wage level in the industry as a whole has gone up by 100 per cent. and more, although till 1942, wages did not show any appreciable increase. Only the wages of blowers began to rise from the first days of the present war and have gone up by 200 to 300 per cent. so far. Most of the concerns are paying consolidated wages but some have kept basic wages separate from incidental war-time dearness allowance. Blowers' wages in 1939 were about Rs. 45 p.m. Now they are earning about Rs. 100 p.m. Cases came to our notice where they had earned as much as Rs. 250 p.m. The earnings of blowers in factories equipped with semi-automatic blowing machines are about Rs. 60 p.m. These machines can be easily worked by the less skilled blowers. Helpers, neck-makers, firemen, etc., are earning Rs. 65 to 70 p.m., while before the war their average earnings per month seldom exceeded Rs. 30. Unskilled men were earning Rs. 10 to 12 in 1939 but at present they are getting Rs. 30 to Rs. 35 p.m. Similarly the average wages of women coolies have increased from Rs. 8 p.m. in 1939 to Rs. 24 p.m. in 1944. In the glass bangle factories at Firozabad, wages have increased by 150 to 200 per cent. The employers agreed with the local Mazdoor Sabha in 1939 to pay minimum wages to certain specified categories. These rates were further increased in 1943. The current rates of wages are, however, considerably above those laid down in the agreement. *Tarwalas* and *belanwalas* are the highest paid workers in these factories. The bigger firms are paying separate dearness allowances. Some of them have a flat rate while others have slabs or percentage rates. The Ganga Glass Works at Balawali (U.P.) pays dearness allowance of Rs. 15 p.m. to all their employees while the U.P. Glass Works at Bahjoi pays dearness allowance at As. 10 in the rupee. Some of the Bombay factories have not raised their *basic* wages and regard the difference between current and pre-war wages as dearness allowance. In the Punjab, basic wages have gone up considerably and a dearness allowance at As. 2 in the rupee is paid compulsorily. Usually regularity in attendance is insisted upon as a condition precedent to the payment of full allowance, and in case absence in the course of a month exceeds two or three days, a *pro rata* deduction is made. Overtime work in the bigger concerns is paid for at the rates prescribed in the Factories Act or at higher rates but in most of the smaller factories an hour's extra work is not reckoned. The period of wage payment in most of the factories is one month and wages are paid by the 7th of the month following. Glass factories in most Provinces have been exempted from the provisions of Section 35 (Weekly Holidays) of the Factories Act on technical grounds. The factories have, however, been obliged to grant a 24 hours' holiday to every worker after not more than 14 days' continuous work. In a number of concerns this proviso was being disregarded. The daily rated workers do not get any paid holidays except in a few concerns. Thus, in the U.P., only in 3 out

of 27 factories surveyed are paid holidays given to workers, but even in these the piece-rated workers do not get paid holidays. No complaints regarding delay in the payment of wages were made.

Conditions are different in the cottage shops. Cutters, painters, etc., are piece-rate workers, though sometimes after estimating the monthly output, cutters are put on monthly salaries. Men are earning Rs. 30 to 45 p.m. while children earn As. 12 to Rs. 1-8-0 per day. Rates of wages paid to children are not low from an absolute standpoint though the earnings of adults are considerably higher. No registers are maintained for keeping attendance or payment records for no law obliges them to do so. The workers do not get any holidays as the shops are open throughout the month.

Working Conditions.—Majority of the factories are working 3 eight-hour shifts (12 midnight to 8 a.m.; 8 a.m. to 4 p.m; and 4 p.m. to 12 midnight) for furnace workers and blowers, and one general shift (8 a.m. to 7 p.m. with an hour's rest between 1 p.m. and 2 p.m.) for the office staff and unskilled coolies. Overlapping shifts are not worked anywhere. Conditions of lighting and ventilation were found to be satisfactory in the blowing sheds of the factories, but the mixing rooms were found to be deplorably ill-ventilated and ill-lighted. The atmosphere was laden with the dust of silica and other chemicals and yet the workers working therein had not been provided with either dust-respirators or goggles. It was alleged that a number of mixers had contracted lung diseases of the nature of silicosis. In the bigger establishments, floor area per worker was adequate but one felt that for the nature of operations carried on therein, *viz.*, moving and swinging blow-pipes with molten glass at one end, the space per worker should have been greater. In the smaller works, the floor area was definitely inadequate with the result that a number of burns were caused, which were not always due to the carelessness of the workers. Broken pieces of glass were scattered all over the area causing cuts to the workers, who, in most of the concerns, walked about bare-footed. The glass factories are very hot all the year round and intolerably so in summer, because of the furnaces burning for all the 24 hours. Blowers and helpers, moulders and linemen, all work in front of furnaces. In the sheet-glass factory, workers employed at the top and bottom machines, sometimes faint while on duty. But the conditions in this regard are very much worse in the glass bangle factories and *bhattas* of *shishgars*. There the *tarwala* and *belanwala* have to work continuously, without even a moment's respite, in front of the furnaces. They *often* faint at their post. In the cottage shops, wherein over 40 per cent. of the total employment is child labour, conditions are still worse. These shops know neither lighting nor ventilation. The joining shops, in order to bar a direct draught of air, close all the doors and shut out fresh air completely. The result is that small children of between 6 and 10 years work in smoky atmosphere for long hours. It is not surprising, therefore, that they become emaciated, anaemic and rickety. Their eyesight is jeopardized in early childhood. There are no scheduled hours of work and each employer follows his individual programme. In spite of all this, the Employment of Children Act, extended in 1939 to a number of industries, has not yet been made applicable to these shops.

Welfare Activities.—Distinction has to be made between welfare activities in the bigger establishments and those in the smaller ones. In the former, at least the obligatory welfare activities are honestly undertaken. The Scientific and Industrial. Glass Co. of Calcutta has a dispensary of its own under the charge of a qualified Doctor. It runs a canteen also, supplying the noon meal free of cost and other eatables at market rates. There are canteens in two

other factories also. Out of the 17 factories surveyed in Bengal, 5 had dispensaries of their own and 4 had made arrangements with local private practitioners paying them small allowances. In the U.P., only the three leading concerns had made any arrangements for medical aid. They were, however, very inadequate. In a big centre like Firozabad, the employers had made no arrangements for medical aid whatever. In one of the Bombay factories, there was a canteen which provided meals and tea at 25 per cent. below market rates. There were no creches in any of the factories surveyed, although in some of them over 100 women were employed. In some places, grain shops managed by private contractors supply food stuffs to workers both on cash and credit. But their accounts are rarely checked by the management, and it may be that the worker is sometimes cheated. No special steps have been taken to safeguard the worker against the intolerable heat of the glass factory. Only in Bangalore, where welfare amenities appeared to be of a high order are the management considering the provision of free cool drinks. The employers have made no arrangements worth the name in any of the Provinces for the education of their adult employees or the children of the employees.

Housing.—About 26 per cent of the total number of workers employed in the glass factories surveyed were housed by the employers. In the United Provinces, at the Ganga Glass Works, Balawali, about 250 workers out of a total of 729 were housed free of rent. But in other U.P. centres housing accommodation wherever provided was charged for. In Bengal, all the 762 workers housed did not have to pay for their lodging. In Bombay, only one factory housing 300 workers charged rent at Rs. 3 to Rs. 4 per month. Types of houses vary from centre to centre and even in the same centre. As a rule technical hands are given the better type. Their quarters are usually *pucca* built, with a couple of rooms, a kitchen, a bath-room and a court-yard. Accommodation provided to semi-skilled and unskilled workers consists of single room tenements built in line with or without verandah in the front. Rents charged to these workers are nominal in all the centres. Sanitary arrangements for the inferior types of quarters were found to be inadequate in all places and deplorable in some. There was no congestion in quarters provided by factories situated in villages. But in quarters in big towns we found considerable congestion. White-washing is done very seldom. The rooms are generally 10 ft. × 8 ft. in size and there is hardly any arrangement for ventilation.

Working of the Various Acts.—The Factories Act applies to all glass factories using power and having more than 20 employees. In some Provinces it has been extended to factories employing 10 or more workers. It was found that some of the provisions of the Act, especially in regard to working hours, holidays, safety and health, were not being fully observed. Children were being employed in some of the regulated factories. Although the Workmen's Compensation Act applies to all the factories, most of the accidents go unpaid for and there is a facile contravention of the provisions of the Act. The "waiting period" of 7 days saves the employers in most cases, as the commonest injuries, *viz.*, cuts and burns, get healed up within less than the "waiting period". The employer is not obliged even to pay wages for the duration of enforced unemployment. Even in factories employing over one hundred women workers, no case came to our notice where maternity benefit had been paid. All this has to be predicated with the remark that the factory inspectorate is everywhere too inadequate to the task set for it.

Miscellaneous.—Because of the *de facto* seasonal nature of the industry and the consequent intermittent periods of unemployment, the glass factory workers have not been able to organize themselves into strong unions. In

Firozabad, in the United Provinces, there is a Mazdoor Sabha which claims a strength of 2,000, but it does not have much of a hold over the workers. In Calcutta, there is a Calcutta Glass Works Union, which has a membership of only 327. Similarly, in Bombay, there are two Unions but both of them seem to be comparatively inactive. Glass factory workers were indebted nearly in *all* the centres investigated. They are given to the drink evil and at some places to gambling also. It is not surprising, therefore, that they have to go in for borrowing often. In some centres, there are cinemas and roulettes which depend almost entirely for their income on glass workers. At one place, leading money-lenders of the town were the proprietors of the factories themselves.

To sum up, the glass industry is still unfortunately one of those where serious evils prevail in spite of factory laws and in the cottage industry, which should have a cleaner record, conditions of labour seem to be actually worse. Prevalence of child labour in contravention of the law in the case of the regulated factories, and otherwise in that of cottage shops, deserves immediate and particular attention.

SIMLA ;
15*th June*, 1945.

B. P. ADARKAR.

Appendix I.

Wages and Earnings of Workers in a Leading Glass Factory in U. P.

Occupation.	1939 Basic Wages and Earnings.	1946 Basic Wages.	1946 Gross Earnings.	Increase % Average Basic Wages.	Increase % Average Gross Earnings.
	Rs. A. P.	Rs. A. P.	Rs. A. P.		
Blowers—					
M1	37 0 0	100 0 0	115 0 0	38·5	84
M2	30 0 0	32 0 0	47 0 0		
A	33 0 0	45 11 6	60 11 6		
Helpers—					
M1	22 0 0	36 0 0	51 0 0	30·7	98·8
M2	22 0 0	25 0 0	40 0 0		
A	22 0 0	28 12 0	43 12 0		
Bubble-makers—					
M1	15 0 0	22 0 0	37 0 0	32·4	143·5
M2	12 0 0	15 0 0	30 0 0		
A	13 6 0	17 12 4	32 12 4		
Carriers and Moulders—					
M1	9 8 0	15 8 0	30 8 0	59·5	233·4
M2	8 0 0	13 0 0	28 0 0		
A	8 10 0	13 12 3	28 12 3		
Mixers—					
M1	15 0 0	26 0 0	41 0 0	31·7	153·3
M2	10 0 0	13 0 0	28 0 0		
A	12 5 4	16 4 0	21 4 0		—
Firemen—					
M1	25 0 0	32 0 0	47 0 0	84·3	130·7
M2	14 0 0	25 0 0	38 0 0		
A	18 4 7	27 2 0	42 2 0		
Lehr Unholders—					
M1	12 0 0	20 0 0	35 0 0	36·7	167·3
M2	10 0 0	14 0 0	29 0 0		
A	11 8 0	15 11 8	30 11 8		
Coalmen—					
M1	10 0 0	15 0 0	30 0 0	55·2	213·1
M2	9 0 0	14 8 0	29 8 0		
A	9 8 0	14 12 0	29 12 0		
Cutters, Wrappers, Packers, Grinders—					
M1	14 8 0	19 8 0	34 8 0	44·9	79·6
M2	6 0 0	13 0 0	28 0 0		
A	9 14 5	14 5 0	29 5 0		
Carpenters—					
M1	20 0 0	45 0 0	60 0 0	123	238·4
M2	8 8 0	17 0 0	32 0 0		
A	13 0 0	29 0 0	44 0 0		
Machinemen—					
M1		70 0 0	85 0 0		
M2		15 0 0	30 0 0		
A		44 0 0	59 8 0		
Potters—					
M1	35 0 0	60 0 0	75 0 0	61·9	126·8
M2	13 8 0	21 0 0	36 0 0		
A	24 4 0	40 0 0	55 0 0		

M1—Maximum. M2—Minimum. A—Average.

APPENDIX II.

Daily Wages and Earnings of Workers in a Sheet Glass Factory (Sheet Glass Sections).

Occupation.	1939. Basic Wages.	1942. Basic Wages.	1942. Gross Earnings.	1945. Basic Wages.	1945. Gross Earnings.
	R. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Mixers—					
M1	0 4 9	0 6 9	0 8 5	0 10 6	1 2 ½
M2	0 4 6	0 5 0	0 6 3	0 9 3	1 0 0
A	0 4 7	0 5 7½	0 7 ½	0 10 1	1 1 4½
Firemen—					
M1	0 6 9	0 8 0	0 10 0	0 14 0	1 8 2
M2	0 5 3	0 7 0	0 8 9	0 13 0	1 7 4
A	0 5 6	0 7 3	0 8 10	0 14 0	1 7 9
Helpers—					
M1	0 5 0	0 6 3	0 7 10	0 13 0	1 6 6½
M2	0 4 3	0 5 3	0 6 7	0 9 3	1 0 0½
A	0 4 10	0 5 10½	0 7 4	0 11 7½	1 3 10
Batchfeeders—					
M1	0 6 0	0 6 6	0 8 1½	0 11 3	1 3 10
M2	0 5 0	0 5 6	0 6 10½	0 10 0	1 3 3
A	0 5 5	0 6 0	0 7 6	0 10 7½	1 2 2½
Bottom Mechanists—					
M1	0 8 6	0 9 9	0 12 2	1 6 0	2 4 0
M2	0 4 9	0 4 9	0 5 11	0 8 0	0 14 6
A	0 5 10	0 6 4½	0 7 11½	0 11 6	1 3 8
Top Machinists—					
M1	0 7 0	0 7 0	0 8 9	0 12 3	1 4 10½
M2	0 6 6	0 5 6	0 6 10½	0 10 6	1 2 ½
A	0 6 9	0 6 5	0 8 0	0 11 5	1 3 6
Liftmen—					
M1	0 5 6	0 6 3	0 7 10	0 11 0	1 2 10½
M2	0 4 9	0 4 6	0 5 7½	0 10 0	1 1 3
A	0 5 2	0 5 7	0 7 0	0 10 5	1 11 11
Sheet Cutters—					
M1	1 4 6	1 4 9	1 9 11	2 13 3	2 13 3
M2	0 13 6	0 11 6	0 14 4½	2 0 6	2 0 6
A	1 1 7	0 15 6	1 3 4½	2 3 10½	2 3 10½
Sheet Carriers—					
M1	0 4 6	0 5 6	0 6 10½	0 10 0	1 1 3
M2	0 4 0	0 5 0	0 6 3	0 9 0	1 0 ½
A	0 4 3½	0 5 3½	0 6 7½	0 9 8½	1 0 8½
Cullet carriers—					
M1	0 4 6	0 5 9	0 7 2	0 10 6	1 2 ½
M2	0 4 6	0 5 0	0 6 3	0 8 0	0 14 0
A	0 4 6	0 5 5	0 6 9	0 8 10½	0 15 5
Packers—					
M1	0 6 0	0 7 0	0 8 9	0 12 6	1 4 3
M2	0 6 0	0 5 6	0 6 10½	0 11 0	1 1 10½
A	0 6 0	0 6 1	0 7 7	0 11 7	1 2 10½
Wrappers—					
M1	0 3 6	0 4 9	0 5 11	0 9 9	1 0 0
M2	0 3 0	0 3 6	0 4 4½	0 7 6	0 13 2
A	0 3 3	0 4 1	0 5 1	0 8 2	0 14 3
Carpenters—					
M1	0 11 0	0 8 6	0 10 7½	3 0 1½	3 0 3
M2	0 8 0	0 6 9	0 8 5	2 9 3	2 9 3
A	0 9 8	0 7 8	0 9 7	2 12 5	2 12 5
Porters—					
M1	0 6 0	0 6 9	0 8 5	0 12 9	1 5 8½
M2	0 4 6	0 5 6	0 6 10½	0 10 6	1 2 ½
A	0 5 1½	0 5 11	0 7 5	0 11 1½	1 3 4

M1—Maximum. M2—Minimum. A—Average.

APPENDIX III.

Average Daily Wages and Earnings of Workers in the same Sheet Glass Factory (Boiler, Power House, Blacksmithy, Workshop and Paper Section).

Occupation.	1939.	1942.		1945.	
	Basic Wages.	Basic Wages.	Gross Earnings.	Basic Wages.	Gross Earnings.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Boiler.					
Firemen	0 6 0	0 7 0	0 8 9	0 11 9	1 2 ½
Asstt. Firemen	0 4 6	0 6 0	0 7 6	0 10 0	1 0 3
Cleaner	0 4 0	0 5 6	0 6 10½	0 8 3	0 13 4½
Power House.					
Driver	21 0 0 p. m.	0 12 0 p. d.	0 15 0	0 15 9	1 9 6½
Oilmen	0 4 6	0 5 6	0 6 10½	0 8 6	0 13 10
Blacksmithly.					
Blacksmith	30 0 0 p. m.	0 15 3	1 3 1	102 0 0 p. m.	102 0 0
Hammerman	0 6 0	0 6 9	0 8 5	0 8 9	0 14 2
Asstt. Hammerman	0 5 0	0 5 6	0 6 10½	0 8 0	0 13 0
Workshop.					
Turners	42 0 0 p. m.	1 4 0 p. d.	1 9 0 p. d.	1 12 0 p. d.	2 3 0
Fittors	30 0 0 p. m.	1 2 0 p. d.	1 6 6	1 4 0	1 9 0
Cleaners	0 4 6	0 5 6	0 6 10½	0 8 0	0 13 0
Electrician in charge	50 0 0 p. m.	2 0 0 p. d.	2 8 0	4 5 3 p. d.	4 5 3 (p. d. No. d. a.)
Asstt. Electrician	..	..	..	3 10 0	3 10 0
Wiremen	14 0 0	0 7 3 p. d.	0 9 1	0 8 6	0 13 10
Carpenters	30 0 0	1 0 0	1 4 0	1 0 0	1 4 0
Paper.					
Choppers	..	0 4 6	0 5 7½	0 8 0	0 13 0
Lifters	..	0 4 6	0 5 7½	0 9 6	0 12 0
Drivers	..	0 4 6	0 5 7½	0 8 0	0 13 0

APPENDIX IV.

Particulars of Rates of Wages paid to the Workers in a Leading Factory (Bombay).

Categories.	Previous to 1st June, 1943.	From 1st June 1943 to 31st Dec. 1943.	From 1st January, 1944 to 30-9-44.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Blowing Department.			
Supervisors	60 0 0	75 0 0	100 0 0*
Munshies	40 0 0	50 0 0	60 0 0*
,, ...	52 0 0	65 0 0	78 0 0*
Blowers	40 0 0	50 0 0	60 0 0
,, ...	45 0 0	56 4 0	67 8 0
Helpers	35 0 0	43 12 0	52 8 0
,, ...	40 0 0	50 0 0	60 0 0
Cutters	35 0 0	43 12 0	52 8 0
,, ...	40 0 0	50 0 0	60 0 0
Rulsa	33 0 0	41 4 0	49 8 0
Soda Rulsa	40 0 0	50 0 0	60 0 0
Airman	24 0 0	31 8 0	37 12 0
Jamadar (Fireman)*	23 0 0	30 8 0	36 9 0
Coolies	22 0 0	29 8 0	35 6 0
Fitters	48 0 0	60 0 0	75 0 0
Mistri (Fitter Head)	..	75 0 0	100 0 0
,, ...	40 0 0	50 0 0	65 0 0
Packing Department.			
Supervisor	85 0 0	100 0 0	150 0 0*
Munshi	36 0 0	45 0 0	54 0 0†
Munshi	..	35 0 0	42 0 0†
Muccadum	40 0 0	50 0 0	60 0 0
Men (per day)	1 4 0	1 8 3	1 13 0
Women ,, ...	0 10 0	0 15 3	1 2 3
Mixing Department.			
Munshi	36 0 0	45 0 0	54 0 0†
Men (per day)	0 14 0	1 2 0	1 5 6
,, ,, ...	0 12 0	1 0 6	1 3 9
Broken Department.			
Munshi	44 0 0	55 0 0	75 0 0*
Men (per day)	0 14 0	1 2 0	1 5 6
,, ,, ...	0 12 0	1 0 6	1 3 9
Women ,, ...	0 10 0	0 15 3	1 2 3
Sorting Department.			
Supervisor	44 0 0	55 0 0	75 0 0†
Munshi	32 0 0	40 0 0	48 0 0†
Men (per day)	0 11 0	1 0 6	1 3 9
Women ,, ...	0 10 0	0 15 3	1 2 3
Grinding Department.			
Munshi	44 0 0	55 0 0	70 0 0*
Men (per day)	0 12 0	1 0 6	1 3 9
Women ,, ...	0 10 0	0 15 3	1 2 3
Mechanic Department.			
Mistri	55 0 0	75 0 0	100 0 0*
Turner	90 0 0	120 0 0	150 0 0
,, ...	..	85 0 0	130 0 0
,, (per day)	3 0 0	3 8 0	4 3 0
Engraver	45 0 0	60 0 0	80 0 0
Fitter (per day)	1 12 0	2 4 0	2 11 0
Cooly ,, ...	0 14 0	1 2 0	1 5 6

Categories.	Previous to 1st June, June, 1943	From 1st June 1943 to 31st Dec. 1943.	From 1st January 1944 to 30-9-44.
Power House Department.			
Electrician	90 0 0	100 0 0	150 0 0
Fitters (per day)	2 8 0	3 0 0	3 9 0
,, ,, ...	1 0 0	1 4 0	1 8 0
Blacksmith Department.			
Mistri	70 0 0	90 0 0	108 0 0
Blacksmiths	40 0 0	60 0 0	72 0 0
,, ...	..	..	60 0 0
			50 0 0
Tube Blowing Department.			
Blowers	..	..	100 0 0
,, ...	..	70 0 0	84 0 0
,, ...	..	..	75 0 0
,, ...	..	..	65 0 0
,, ...	..	..	60 0 0
Helpers	..	..	60 0 0
Bublers	28 0 0	35 0 0	42 0 0
Coolies	22 0 0	29 8 0	35 6 0
Carpenter Department.			
Mistri	84 0 0	105 0 0	126 0 0*
Carpenters (per day)	2 12 0	3 6 0	4 4 0
,, ,, ...	3 7 0	4 4 0	5 0 9
,, ,, ...	2 3 0	2 12 0	3 4 3

*Are provided quarters only (fee).

†Are provided Lodging & Boarding (fee).

N.B.—(a) No dearness allowance was paid to workers but 57 per cent. fixed increment was paid upto 31st May 1943 and over and above an increment of 25 per cent. to 40 per cent. respectively was paid from 1st June 1943 to 31st December 1943 and further additional increment of 20 per cent. was paid from 1st January 1944.

(b) An extra monthly bonus on " Standard Production " is paid to the workers according to the efficiency made by each worker. The average amount of bonus per individual worker comes to Rs. 10 to Rs. 30 for Blowers and Helpers; Rs. 10 to Rs. 30 for Rulsawala; Rs. 20 to Rs. 35 for Cutters; Rs. 5 to Rs. 10 for Airman; and Rs. 2 to Rs. 5 for Coolies.

(c) Free quarters are provided nearly to all the workers of Blowing Department, including the supervisors and munshis, and in addition to this allowance the munshis of other departments are given free boarding. Further, nearly all the Blowers, Cutters, Helpers, Rulsawala and Coolies (imported from upcountry) are paid for fuel and kerosene oil.

(d) The total amount of bonus (Rs. 8,500) was paid in the year 1943 to those workers whose services completed for 8 months and over at the rate of 12-1|2 per cent. of the total earnings of 12 months during the year 1942-43.

(e) The total amount of bonus (Rs. 32,518|1|3) was paid to those workers whose services were for six months and over were in Company's services at the time of payment of bonus at the rate of 12-1|2 per cent. of the total yearly earnings as bonus in the year 1944 for 1943-44. An extra bonus of 5 per cent. was paid in addition to the above who had received the previous bonus for 1942-43.

APPENDIX V.

Wages and Earnings in Glass Factories (Bombay Province).

Name of Occupation.	G. 1.		G. 2.						G. 3.				G. 4.						G. 6.			G. 7.					
	Gross Earnings		Basic Wages			Gross Earnings			Basic Wages		Gross Earnings		Basic Wages.			Gross Earnings.			Gross Earnings.			Basic Wages			Gross Earnings.		
	Max.	Min.	Max	Min	Av.	Max.	Min	Av.	Max.	Min.	Max.	Min.	Max.	Min.		Max	Min.	Av.	Max	Min.	Av.	Max.	Min.	Av.	Max	Min	Av.
	Rs.	R.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	R	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Supervisors	150	60	..	..	..	..	..	..	125	80	150	104	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Foremen	..	..	40	28	35	43	28	35	100	45	120	70	65	40	53	75	50	63	..	..	..	63	54	59	87	82	83
Blowers	100	36	100	45	64	106	45	65	62	30	78	48	33	25	28	43	45	38	140	60	104	70	39	54	87	70	74
Bubblers	..	..	40	20	30	43	20	31	14	12	24	22	23	12	16	33	22	26	..	..	..	45	14	22	48	22	35
Bangle-makers	..	..	..	..	..	..	..	..	..	..	..	..	38	13	19	46	21	27	..	..	..	..	..	..	..	..	..
Blacksmiths	108	32	70	40	46	74	40	47	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Carboy-blowers	..	..	..	..	..	..	..	..	..	..	..	..	39	33	37	49	43	47	..	..	..	..	..	..	..	..	..
Carpenters	120	36	..	..	..	..	..	..	40	20	60	32	60	60	60	68	68	68	..	..	..	..	..	..	..	..	..
Chambermen	..	..	50	20	39	53	20	45	..	..	..	..	25	25	25	35	35	35	..	..	..	43	30	38	58	28	43
													M. 24	15	20	32	23	28	..	..	..	43	30	38	58	28	43
Cutters	..	..	..	..	..	..	..	..	22	12	37	22	C. 13	13	13	17	17	17	..	..	..	42	14	20	65	25	33
Compressors	150	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	50	50	50	50	50	..
Drivers	..	..	..	..	..	..	..	..	..	..	..	..	35	25	30	43	33	38	..	..	..	43	25	33	66	30	50
Firemen	..	..	55	28	38	58	28	40	29	20	47	32	41	27	35	51	37	45	..	..	..	..	..	..	..	..	45
Fitters	..	..	..	..	..	..	..	..	80	25	104	40	48	30	36	56	38	44	..	..	..	..	..	..	..	..	..
Gatherers	..	..	..	..	..	..	..	..	19	8	31	16	28	16	22	38	26	32	..	..	..	..	..	..	..	..	..
Grinders	70	29	20	13	18	21	13	18	..	..	..	..	M. 32	32	32	..	..	40	..	..	..	..	..	..	..	..	..
Helpers	..	..	70	36	44	74	36	44	..	..	..	..	W. 16	11	14	22	11	17	..	..	..	..	..	..	..	..	..
Masons	..	..	..	..	..	..	..	..	20	..	..	..	20	20	20	30	30	30	..	..	..	55	28	42	57	50	55
Mixers	54	32	..	..	..	..	..	..	..	16	32	28	60	60	60	68	68	68	..	..	..	..	..	..	..	..	..
Moulders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23	21	22	40	35	37
	M. 60	49	40	35	37	43	28	35	..	..	..	..	37	37	37	45	45	45	..	..	..	..	..	..	..	..	..
Packers (ordinary)	W. 30	30											M. 26	14	19	34	22	27	..	..	..	..	..	..	..	..	..
													W. 14	13	14	20	19	20	..	..	..	M.34	25	30	49	25	42
													C. 12	12	12	16	16	16	..	..	..	..	..	..	..	..	..
Packers (in cases)	M. 42	35	..	..	..	..	..	..	..	..	..	..	M. 40	20	26	48	20	32	..	..	..	..	..	..	..	..	..
	M. 66	25	..	..	..	..	..	..	..	..	..	..	W. 18	18	18	24	24	24	..	..	..	..	..	..	..	..	..
Sorters	W. 30	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	M. 52	18	35	20	25	37	20	27	20	14	32	24	25	15	20	33	23	28	38	30	24	30	14	16	32	24	28
Coolies	W. 30	30	22	13	18	23	13	20	16	10	28	18	13	12	13	20	19	19	..	..	..	18	12	14	28	20	22
	C.	..	..	..	..	..	..	..	10	17	18	12	12	11	11	16	15	15	..	..	..	14	14	14	24	18	22

APPENDIX VI.

*Wages of Glass Factory Workers in the Punjab.**

Unit.	Year	Mistry in charge	Workshop Mistry.	Fireman.	Driver	Coal-coolie.	Mixer.	Blower	Helper	Rulsawalla.	Moulder.	Gaugeman.	Lineman.	Coolie.
G. 1 ..	1939	Rs. 40	Rs. 40	Rs. 20	Rs. 20	Rs. 15	Rs. 15	As. 1½ per batch.	Rs. 25	Rs. 20	Rs. 10	Rs. 10	Rs. 12	Rs. 12
	1944	150	150	50	50	35	40	As. 6 per batch.	75	70	30	30	34	30
G. 2 ..	1942	..	Rs. 1 8 0 per day	Rs. 25	Re. 1 per day	Rs. 21	Rs. 25	Rs. 55	Rs. 35	Rs. 25	As. 9 per day.	..	As 11 per day.	As. 9 per day.
	1944	150	2 10 0	45	Rs.2 10 0 per day.	34 14 0	40	120	70	48	Re. 1-1-0 per day.	..	Re. 1-4-0 per day.	Rs. 1 0 0 1 2 0 1 4 0 per day.
G. 3 ..	1942	Rs. 100	Rs. 44	Rs. 21	Rs. 22	..	..	As. 3 per batch.	Rs. 40	Rs. 25	As. 14 per day.	As. 14 per day.	Re. 1 per day.	As. 11 per day.
	1944	150	60	50	40	..	..	As. 4½ per batch.	75	55	Re. 1 per day.	Re. 1 day.	Rs.1 2 0 day.	As. 14 per day.
G. 4 ..	1944	Rs. 400	Rs. 90	Rs. 40 to 50	Rs. 60	Rs. 35	Rs. 40	As. 5 per batch	Rs. 75	Rs. 75	Rs. 35	Rs. 35	Rs. 40	Cullet sorters (women) 0-0-9 per basket. They earn As 15 per day. Packers As. 2 per bag or Rs. 1-6-0 per day.

*Figures are " per month " except where it is otherwise specified.

Appendix VII.

Estimate of Total Employment in the Glass Industry.

The latest figures available for employment in the regulated glass factories are those for the year 1943. Subsequent figures are not available, but there is no reason to suppose that employment had risen after 1943. Owing to transport difficulties, supplies of coal and raw materials have often been unobtainable, and in consequence there has been occasional unemployment. The figure for 1943, for registered factories was 18,328. The present employment, therefore, may be assumed to be in the neighbourhood of 18,000. Besides the registered factories, there are a large number of unregulated factories and cottage shops, manufacturing bangles, inkpots, hollow-ware, etc., on orthodox lines and also carrying on operations ancillary to the manufacture of bangle spirals in the factories. Firozabad in the United Provinces is the main centre of the unregulated industry, though there are several other centres of it scattered over the country, especially in the provinces of Bombay and Bengal. In trying to estimate employment in the unregulated shops, one enters a *terra incognita* of statistics, but an attempt is made to arrive at a rough estimate. There is such a concentration of the glass industry in Firozabad that our estimate of employment there will mainly decide the total. According to the *Paisa Fund Silver Jubilee Number*, (1935), p. 56, the probable employment in the unregulated industry in Firozabad is 12,000. This, however, appears to be an over-estimate. The total population of Firozabad is about 40,000. Even taking into account the fact that some of the children among this population are being employed, we must remember that a considerable section of the adults are engaged in the marketing of glass products and other subsidiary trades. Hence, the total number of workers actually employed in the manufacture of glass, whether on factory or cottage basis, cannot be more than 10,000. As the number of factory workers in Firozabad is round about 4,000 the total number of workers engaged in the cottage industry would be about 6,000. As regards other towns in the United Provinces, such as Saharanpur, Moradabad, Agra, Aligarh, Etah, Etawah, and Pratapgarh, the employment in cottage shops may be in the neighbourhood of 2,000. Thus in the United Provinces, we get a total of 8,000 for cottage shops. Outside the U.P., the cottage industry is less concentrated. We may put down the figure of 1,000 for Bombay, 500 for Bengal, and 500 for other areas. The final estimate is given below :—

	Employment.
Regulated factories in British India	18,000
Regulated shops, including cottage shops and small factories.	
United Provinces	8,000
Bombay	1,000
Bengal	500
Other Areas	500
Total	28,000

Thus it would appear that the final estimate may not be greater than 30,000 and, probably, not less than 25,000 for British India. As regards the Indian States, the production, both on factory and cottage basis, is being carried on on a fairly big scale at Bangalore, Ogalewadi, Hyderabad, Morvi, Wadhwan and Gwalior. The total employment in the Indian States may be in the neighbourhood of 5,000. Thus, for India as a whole, the estimate should lie between 30,000 and 35,000.

The figures for employment in the regulated glass factories from 1929 onwards are given in the following table :—

TABLE.

Average Daily Number of Workers Employed in the Glass Factories under the scope of the Factories Act.

Year.	U. P.	Bengal.	Bombay.	Madras.	Punjab.	C.P. & Berar.	Bihar.	Orissa.	Total
1929	1,308	603	230	..	100	77	..	..	2,318
1930	1,192	695	320	..	113	70	..	..	2,390
1931	1,725	688	838	..	144	93	..	..	3,488
1932	2,355	1,191	606	..	159	156	..	..	4,467
1933	2,372	1,468	714	138	153	160	..	..	5,005
1934	2,551	1,700	393	123	120	150	..	..	5,037
1935	3,186	537	890	126	129	163	..	..	6,031
1936	3,147	2,059	644	120	151	186	..	..	6,307
1937	3,734	2,371	404	100	120	275	..	152	7,156
1938	4,219	2,110	700	95	134	344	..	163	7,765
1939	4,733	2,280	1,025	100	204	375	14	203	8,934
1940	5,821	3,406	1,414	354	148	535	30	340	12,048
1941	8,038	4,649	1,724	821	345	706	177	243	16,703
1942	7,181	3,738	1,688	520	603	640	167	227	15,015
1943	7,753	4,990	3,293	747	722	219	382	222	18,328

Appendix VIII.

Glossary of Indian Terms.

Addas.—Cottage shops in which coral pipes are cut into bangles.

Astarwala.—A worker in glass bangle factories and workshops, who welds quantities of various coloured glasses to the facets of the glass block which is manipulated later by a *tarwala.*

Belanwala.—Lit., a roller man. He winds the roller while the *tarwala* draws out the glass parison into a thread.

Bhattas.—Small pot furnaces round which the *shishgars* sit when making bangles in the traditional way. Also the shops wherein the pot furnaces are installed.

Bubblewala.—A bubble-maker.

Churi.—Bangle.

Ginaiya.—Lit., one who counts. A worker employed in factories and cottage shops for counting the bangles.

Gulliwala.—A worker in glass bangle factories, who takes out molten glass at one end of the blow-pipe and passes it on to the *bubblewala.*

Jhukaiya.—Stoker at the small pot furnaces.

Jurai.—Joining.

Juraiwala.—Joining-contractor and proprietor of joining shops.

Juraiya.—An employee of the *juraiwala.* He heats the open ends of the bangles over burners and fuses them together.

Karkhana.—Lit., workshop or factory. Generally, a big establishment.

Kataiya.—A cutter. In the bangle factories, he cuts the spirals into rings by scratching them with carborundum.

Lom.—Parison.

Lom-banaewala.—Parison-maker.

Lom-denewala.—Parison-carrier.

Muthewala.—He removes the spirals from the rollers with the help of a hooked rod.

Pahalwala.—*Pahal* means a facet. Pahalwala is one who makes the facets in a parison.

Pankhawala.—A worker in the joining and cutting shops. He works the bellows.

Sadhai.—The process of heating glass rings and putting the two ends together.

Sadhaiya.—A worker who does the sadhai work. The difference between this and *juraiya* is that while *sadhaiya* merely straightens the ends and brings them together, *juraiya* joins them. The word should really be *sidhaiya.*

Shishgar.—Lit., glassware maker. He manufactures bangles in the bhattas in the traditional way.

Tarwala.—*Tar* means wire. Tarwala is a worker who draws out the parison into glass threads with the help of an iron rod.

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LABOUR INVESTIGATION COMMITTEE

GOVERNMENT OF INDIA

REPORT

ON

AN ENQUIRY INTO CONDITIONS OF LABOUR IN THE GOLD MINING INDUSTRY IN INDIA

Cx h 50

BY

S. R. DESHPANDE.

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CONTENTS.

	Page.
LIST OF APPENDICES	ii
TABLES	iii
FOREWORD	iv
CHAPTER I.—*Introduction*	1
(*a*) Historical Background	2
(*b*) Location and structure of the Industry	2
(*c*) Processes involved in Gold extraction and system of work	4
CHAPTER II.—*Employment*	4
(*a*) Labour force (number employed)	4
(*b*) Composition of labour	5
(*c*) Recruitment	5
(*d*) Absenteeism	6
(*e*) Labour Turn-over	6
(*f*) Length of service	7
CHAPTER III.—*Working Conditions*	7
CHAPTER IV.—*Shifts and Working Hours*	8
CHAPTER V.—*Wages and Earnings*	8
(*a*) Basic wage	9
(*b*) Results of Wage Census	11
(*c*) Bonuses	11
(*d*) Allowances	12
(*e*) Privilege leave with pay	13
(*f*) Sick leave with pay	13
CHAPTER VI.—*Housing*	15
CHAPTER VII.—Welfare Work	15
(*a*) Medical facilities	16
(*b*) Education	16
(*c*) Recreation	16
(*d*) Provident Fund	16
(*e*) Service Gratuity	17
CHAPTER VIII.—*Relationship between Employers and Employees*	17
(*a*) Standing Orders	17
(*b*) Trade Unions	18
(*c*) Strikes	18
CHAPTER IX.—Legislative Enactments applying to Labour in the Mines :	
1. The Mysore Mines Act, 1906	18
2. The Mysore Maternity Benefit Act, 1937	19
3. The Mysore Workmen's Compensation Act, 1928	19
4. The Mysore Labour Act, 1942	20
CHAPTER X.—*Indebtedness of workers*	21
CHAPTER XI.—*Summary and conclusions*	22

APPENDICES.

I. Statement showing the minimum and maximum basic wages for different occupations in the Gold Industry.

II. A and B. Frequency Tables showing the wages and earnings in the Kolar Gold Fields.

III. Details regarding Attendance Bonus.

IV. Copy of Agreement, under the Mysore Labour Act, 1942, between the Mining Companies and the Registered Labour Associations in the matter of payment of dearness allowance.

V. Cost of Living Index Numbers in the Kolar Gold Fields for the year 1944 and for January, February and March 1945.

VI. Housing Orders.

VII. Statement showing the details of major strikes between the years 1930 and 1940.

VIII. Mysore Government Order No. D.-6583|6-I. & C. 85-40-34, dated 17th April 1942, on the Report of Rajamantrapravina Diwan Bahadur K. Matthan regarding the conditions of labour on the Kolar Gold Fields.

TABLES.

I. Table showing the number of workers in the Gold Mining Companies on the Kolar Gold Fields as on 1st January 1939 and 1st January 1944.

II. Table showing the percentage of absenteeism for all the four Mining Companies for 1939 and 1943, for company and contract labour separately.

III. Table showing the Labour Turn-over for all the four Mines.

IV. Table showing the length of service of workers on the Kolar Gold Fields.

V. Table showing the average wages and earnings of workers in selected important occupations for the second half of April 1944.

VI. Table showing the scale of privilege leave with pay.

VII. Table showing the rate of Sick leave pay.

VIII. Table showing the number of accidents and the amount of compensation paid during the years 1940-41, 1941-42 and 1942-43.

IX. Table showing the number of Silicosis cases and the amount of compensation paid during the years 1940-41, 1941-42 and 1942-43.

FOREWORD

The gold industry in India, though almost wholly concentrated in a small region in the Mysore State, is by no means one of the least important in the country. It provides employment to over 20,000 workers and yields to the Mysore State annually a revenue by way of royalty and tax amounting to over two crores of rupees. This is perhaps the only industry in the country located in a limited region of about 23 square miles and presents a picture somewhat different from the one witnessed in other industries which are much more spread out and are much less specialised in character. The employers in this industry consisting of four English Companies (incorporated in England) have a close-knit organisation. This has greatly facilitated the conduct of the present enquiry in view of the very helpful attitude adopted by the employers in replying to the Committee's questionnaire and in supplying me and the officers of the Committee with the necessary information.

After studying the employers' replies to the questionnaire, I paid a visit to the Kolar Gold Fields and went down one of the mines with the Chief Inspector of Mines of the Mysore Government, who was good enough to explain to me the various processes. I have seen the men at work underground and on the surface, have inspected their housing conditions and personally seen the various welfare activities conducted by the employers. I have examined the representations made by the workers and have had the opportunity of meeting them in person at Oorgaum. In understanding the technical details of the various processes in the mines, I have received the utmost assistance from Mr. K. Duraiswamier, Chief Inspector of Mines, Mysore. The Assistant Commissioner of Labour, Mr. A. Sundaram Mudaliar, was extremely helpful during my stay at Ooregaum.

Mr. S. R. Sundaram, one of the Committee's Investigators, personally visited the offices of all the four Gold Mines and collected very valuable data regarding the conditions of work and wages of the employees of these Companies. He also conducted a Wage Census on a sample basis, the summary results of which have been incorporated in this Report in the appropriate section. But for the assistance and co-operation of the Companies, the officials of the Mysore State and the Investigator of the Committee, this Report could not have been as complete as I have tried to make it.

Chapter I.—Introduction.

The Kolar Gold Field which is situated in the Kolar District of Mysore State is the chief centre of gold mining in India. It produces about two per cent. of the gold out-put of the world and almost the entire Indian output.*

Little information is available about the other gold producing centres in India although it would appear that the only other considerable source of production is the gold mine at Hutti in the Dominion of His Exalted Highness the Nizam of Hyderabad, which was opened in the year 1903.† The present survey has therefore been confined to the Kolar Gold Field only.

The growth of this Field is pretty recent. " In 1873, an ex-Army Officer at Bangalore applied to the Government of Mysore for the exclusive privilege of mining gold in the Kolar District—He sunk a shaft in 1875, near Oorgaum, but later realised that the capital expenditure was beyond his means. Hence all the concessions granted by Government were transferred by him to a small Syndicate who took up the matter in earnest. In 1881, the Syndicate obtained the help of Messrs. John Taylor & Sons, a firm of Mining Engineers in London which became the Managing Agent.....After great vicissitudes the gold mining company began to achieve success by 1885 and the first royalty of Rs. 33.368 was paid to Government in 1885 ".‡ Thus, gold production in the State has been carried on for nearly sixty years; and two of the mines, it is reported, have reached great depths nearly equal to the deepest mines in the world, over 9,091 feet vertically below surface.

Commencing with 9 ozs. of gold valued at £37-13-5, in 1882, the production registered a maximum of 556,527 ozs. valued at £2,373,457 in 1905 and during 1943, 252,193 ozs., of fine gold of the net value of £5,08,39,781 was produced.§

The history of gold mining in Kolar is not without its romance, as will be seen from the following observations of Sir Mirza M. Ismail, Dewan of Mysore, in his budget speech for the year 1930-31 :

> " Take the gold mines for instance. They are just celebrating their jubilee. Fifty years ago, the greater part of the capital that had been put up was exhausted and the question was whether the share-holders should risk £13,000 that remained to them in one vast attempt to find gold or should divide it among themselves. They took the risk and have since reaped a more than abundant profit. The State meanwhile has recovered from mines a revenue of over five crores of rupees as royalty, a circumstance that has put it in funds for other large capital ventures ".

In the Kolar Gold Fields, there are four principal mines, *viz.*, Mysore Gold Mining Co., Ltd., Champion Reef Gold Mines of India, Ltd., Ooregaum Gold Mining Co., of India, Ltd., and Nandydroog Mines, Ltd. The business of these four mines is carried out by four joint-stock companies and the normal capital of all the companies for operations in Mysore was in December 1942, £1,628,000, the amount called and paid-up being £1,578,772.‖

The quantity of gold produced from the commencement of operations to the end of 1943, was about 20,620,915 ozs., valued at £102,793,875. The total

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*Hand Book of Commercial Information for Mysore, 1939, page 105.

†Times of India Year Book 1942-43, page 669—Gold.

‡Industrial Development of Mysore by Dr. R. Balakrishna, M.A., Ph.D. (London), page 94.

§Mysore Information Bulletin, November 1944—Sketches of Mysore Industries, Gold Production, page 354.

‖Report of the Chief Inspector of Mines in Mysore, 1942-43, page 1.

sum paid in dividends for the year 1943, amounted to £299,963, the individual dividends ranging from 5 to 40 per cent. on ordinary shares.* In 1940, the dividends paid by the Mining Companies amounted to 20.53 per cent. of the paid-up capital, the corresponding figures for the previous year being 30.09 per cent.†

The mines are leased out to the Companies by the Government of Mysore and the leases are renewed from time to time. Originally the Government were charging a royalty of 5 per cent. on gross output. When the lease was first renewed as from the year 1910, the royalty remained the same but the companies were made to pay in addition 2½ per cent. on the dividends. Thereafter the Government's share of profits was made to vary from 2½ to 40 per cent. according to the dividends declared. According to the Mysore Duty on Gold (Emergency) Act which came into force on 22nd March 1940, a special duty on gold equal to three fourths of the difference between the price at which gold was sold and the price of Rs. 100 an ounce, which was taken as a standard was levied.‡ The following figures§ show the amounts paid to Government by the Companies by way of Royalty and Duty in the years 1941, 1942 and 1943 :

	1941.	1942.	1943.
	Rs.	Rs.	Rs.
Royalty	18,80,427	20,35,933	21,06,807
Duty	34,13,493	87,22,280	1,92,13,216

Processes.—The processes involved in the excavation and extraction of gold are few and simple, although they involve the use of very heavy machinery and the adoption of up-to-date methods of work. Before the use of modern machinery was thought of, the extraction of gold involved merely excavation of the auriferous rock, the crushing of it and recovery of gold by use of water. These processes still play a dominant part even today. The following‖ is an authoritative description of the processes in the Kolar Gold Fields :

Mining Process.—" The gold-bearing ore on the Gold Field occurs in the form of a reef or vein of quartz which outcrops to surface and extends downwards to a great depth. The strike of this reef is north and south and the dip varies from 35° near the surface to almost vertical in the lower levels. The width of the reef varies from a few inches to nearly 20 feet in rare cases. The exploring of the reef in depth is done by sinking main and subsidiary shafts which are connected by levels at definite intervals. The ore body is divided into working blocks by sinking winzes or small shafts through them. Excavation is done by stoping, by hand-drilling or by means of pneumatic drills of various types. The broken ore is passed down to the haulage level chutes, where it is loaded into trucks and trammed to the main shafts, by hand or by electric storage battery locomotives. It is then hoisted to surface through the main shafts ".

Metallurgical Process.—" The ore on being hoisted to the surface is taken to a sorting and crushing station. At this station a certain percentage of

*Mysore Information Bulletin, November 1944, referred to at§ p. 1.

†Report of the Chief Inspector of Mines in Mysore, 1940-41, page 4.

‡Dewan's Speech to the Representative Assembly in June 1940.

§Report of the Chief Inspector of Mines in Mysore for 1942-43, pages 2 & 3. Pounds converted to Rs. at 1s. 6d. per rupee.

‖Mysore Information Bulletin, November 1944—Sketches of Mysore Industries, Gold Production, pages 354-355.

' waste rock ' is discarded and the coarse or large stones are crushed in crushers of the jaw type, the ' fines ' having been previously eliminated by screening. The combined ' coarse crushed ' and ' fine ' ore are conveyed to the stamp mill and on the way pass over a weigh-bridge. The stamp mill of the Californian pattern, aided by water, pulverises the ore and the resultant ' pulp ' issues through woven wire screens with nine holes per square inch, and passes over inclined tables covered with blanketing to arrest the free gold.

The pulp passing over the ' blanket tables ' is pumped by centrifugal pumps to cone-classifiers automatically controlled. The underflow from the cones is fed to the tube mills and the overflow from the cones is sent to the cyanide plant for the recovery of the fine gold. The discharge from the tube mills passes over blanket machines. The material retained on all blankets called ' concentrate ' is passed over copper plates (usually 9 feet long and 5 feet wide) amalgamated with mercury; the gold remains on the amalgamated surface and becomes gold amalgam. The concentrate, from which the gold has been extracted by amalgamation joins the previously mentioned cone overflow at the cyanide plant. The amalgam thus produced is retorted and sponge gold and mercury are recovered. The sponge gold is melted into gold bars and the mercury is used again for amalgamation purposes.

Cyanide Plant.—The cyanide plant consists of collectors, agitators and filter plant. In this plant, sodium cyanide and lime are added to water in various stages and in this solution the remaining particles of gold are dissolved forming gold sodium cyanide solution which flows to extractor boxes containing zinc shavings which chemically react, precipitating gold and forming zinc sodium cyanide. This precipitate is dried and then fluxed with manganese dioxide, borax and soda and smelted in refractory crucibles in an oil-fired furnace. The bullion obtained contains about 900 parts of gold and 90 parts of silver and parts of other impurities ".

System of Work.—The important operations in the mines may be briefly described :

Underground work consists mainly of breaking ground by machine drilling, hand-jumpering and sinking ' winzes ' or small shafts to divide the ore body into blocks of workable sizes. Machines drillers are mostly employees of the companies, while the hand-jumpermen are contract labourers. The " workings " are supported by packwalling with timber and iron material. Timbermen and packwallers do this work.

The broken ore blocks are loaded into trucks and carried in underground tramways to the main shafts by hand or electrically-operated locomotives. " Stuff " coolies and trammers attend to this work. The broken ore is then hoisted to the surface through the main shaft by hoist gangs consisting of hoist drivers, mestries and coolies.

The shafts and levels and the underground plant and machinery are maintained in good repair by the operatives of the Engineering Department consisting of machinery attendants, drivers, mestries, coolies, fitters, blacksmiths, welders, etc.

The broken ore which is hoisted to the surface is conveyed to the sorting and crushing station by the surface trammers. The machine-men and coolies in the station attend to the crushing of the ore by " jaw " type crushers and convey the pulverized ore to the stamp mill, where it is converted to " pulp ". The stamp mill men lead the pulp over blanketing tables to the tube mill. The free gold " arrested " by the blankets and the " concentrate " retained on the blankets over the blanket machines are passed over copper plates amalgamated with mercury. The separation of gold from the amalgam by " retorting"

and melting of sponge gold into bars is done by skilled operatives. Residual gold not recovered by the above processes is then recovered by the Cyanide process already described.

Chapter II.—Employment.

The total number of persons employed, excluding supervisory and clerical staff, by the four Gold Mining Companies on the Kolar Gold Fields on 1st January 1944, was about 20,000 as against about 24,000 on 1st January 1939. The Nandydroog Company employs the largest labour force and the Ooregaum Company the smallest. The following statement contains the figures of the number of workers employed by the four Companies in 1939 and on 1st January 1944 :

TABLE I.

Labour force on the Kolar Gold Field, excluding Supervisory and clerical staff.

	Mysore Co.		Champion Reefs.		Ooregum Co.		Nandydroog Mines.		Total.	
Employed and paid direct by the companies—	1-1-39	1-1-44	1-1-39	1-1-44	1-1-39	1-1-44	1-1-39	1-1-44	1-1-39	1-1-44
Men	4,173	3,192	4,088	3,265	2,735	2,367	4,599	4,116	15,595	12,940
Women	167	177	150	183	141	126	128	152	586	638
Children	..	..	..	..	7	..	..	..	7	..
Total ..	4,340	3,369	4,238	3,448	2,883	2,493	4,727	4,268	16,188	13,578
Workers employed by contractors but paid by the companies—										
Men	2,444	2,277	1,058	1,036	1,410	758	2,418	2,133	7,330	6,204
Women	91	23	..	..	14	11	83	67	188	101
Children	26	4	..	..	46	..	146	49	218	53
Total ..	2,561	2,304	1,058	1,036	1,470	769	2,647	2,249	7,736	6,358
Grand Total ..	6,901	5,673	5,296	4,484	4,353	3,262	7,374	6,517	23,924	19,936

As compared to 1939, the total number employed has gone down from 23,924 to 19,936. It is understood that this is due to the fact that the companies are not going in for any extensive fresh development work. Of the total employed, about 14,000 are employed direct by the companies, while the rest of the labour force is employed through contractors. As will be seen, there has been a slightly greater diminution in the number of contract labour than in company labour. A note-worthy feature is that the contract labour employed underground is paid by the companies themselves and not by the contractors. Moreover, in regard to payment of Workmen's compensation, etc., the companies accept liability for payment for all underground labour. There is comparatively little employment of either women or children.

Composition of Labour.—The labour force on the Kolar Gold Fields is of a very heterogenous character. According to the Mysore Census Report, 1941, about 25.5 per cent. are Mysoreans and 74.5 per cent. outside labour.* The bulk of outside labour belongs to the West Coast and Tamil districts bordering on Mysore State. A striking feature is that half the labour force belongs to the Depressed Classes called the Adidravidas. The amenities provided by the companies have acted as an inducement to a large proportion of the labour force to settle down on the Field. Thus, there are a number of families who have come from the West Coast and Tamil districts and settled down on the Field for nearly two to three generations.

*Mysore Census, 1941—Industry in Mysore by P. H. Krishna Rao, pages 27-28.

There is a uniform classification of the work people in all the four companies and this classification is governed by the Standing Orders for employees. The workers are divided into the following six categories :—

1. Monthly-rated employees,
2. Company employees,
3. Company temporary employees,
4. Contract employees,
5. Contract temporary employees, and
6. Apprentices.

No casual or badli labour is employed.

Recruitment.—The labour is recruited directly through the respective Time Offices. All labour, including contract labour, is subjected to medical examination by the companies doctors. The companies maintain a service card for each operative which contains full particulars regarding the worker, his caste, village, attendance, non-attendance, wages, leave, etc., for each month.

Absenteeism.—The percentage of absenteeism varies from company to company. It is stated that the highest absenteeism is to be found among the underground contract labour and that it is usually prevalent immediately after the pay and festival days. The following table contains absenteeism figures for all the four companies for 1939 and 1943, for company and contract labour separately :

TABLE II.

Name of the Company.	No. of workers on Roll.		Percentage of absenteeism.	
	1939.	1943.	1939.	1943.
1. The Ooregum Gold Mining Co. of India, Ltd.—				
Company	2,544	2,173	9·5%	8·7%
Contract	1,771	1,116	17·9%	17·5%
2. The Mysore Gold Mining Co., Ltd.—				
Company	3,676	4,207	8·53%	7·13%
Contract	2,684	2,907	14·63%	15·30%
3. Nandydroog Mines, Ltd.—				
Company	3,052	4,015	11·9%	6·8%
Contract	2,354	1,850	19·4%	13·9%
4. The Champion Reef Gold Mines of India, Ltd.—				
Company	4,521	3,285	14·34%	15%
Contract	1,312	965	18·62%	17·05%

It will be seen that as compared to pre-war paid absenteeism has not shown any material change. It is understood that one of the reasons for the higher percentage of absenteeism among contract labourers is a tendency on their part to stay away from the mines if they get a more lucrative job outside. Since company labour receives better wages and conditions of service generally, they have no such inducement. After pay and festival days the percentage of absenteeism is reported to be higher. In this connection it may be stated that both company and contract labour receive an attendance bonus, the details of which are discussed in a subsequent section.

Labour turn-over.—The following statement contains information regarding labour turn-over in 1939 and 1943.

TABLE III.

Year	Average total number of workers employed by the four Mining Companies.	Labour turn-over (Retirements, dismissals, and voluntary exits.)	Percentage.
1939	21,914	4,826	21·9%
1943	20,518	3,951	19%

The turn-over appears high for such a well-established industry. It is, however, understood that turn-over is very much higher among contract labour than among company labour. No separate figures for the latter are however available.

TABLE IV.

Length of Service.—Information regarding the length of service of workers in these mines is most revealing as will be seen from the following statement :—

Name of the company.	Number of workers whose service is between			
	0 & 1 years.	1 & 5 years.	5 & 10 years.	Above 10 years.
The Oregum Gold Mining Co. of India, Ltd. ..	708	767	823	964
The Mysore Gold Mining Co., Ltd.	587	1,041	1,569	2,076
Nandydroog Mines, Ltd.	673	919	2,261	2,664
The Champion Reef Gold Mines of India, Ltd. ..	438	631	1,412	2,003
Total ..	2,406	3,358	6,065	8,107
	12%	17%	30·5%	40·5%

Of the total number of workers, 14,172 or nearly 71 per cent. have put in five or more years of service. The percentages in the various service groups are 12, 17, 30.5, and 40.5 respectively. Considering that nearly one-third of the employees are employed by contractors, the above figures show that the labour force in the mines is extremely stable.

Apprenticeship.—There is no system of apprenticeship as such in the Mines. Sons of employees are, however, admitted for training in the Mines Workshops. These trainees are called apprentices. They are graded and paid as follows :

1st year—Annas 4|6.
2nd year—Annas 5|6.
3rd year—Annas 8|-.
4th year—Annas 10|-.
5th year—Annas 13|-.

The apprenticeship period counts for service.

Chapter III.—Working Conditions.

A personal visit underground to a depth of about 5,000 feet revealed that everything possible was being done for the safety and well-being of the mining community. No miner can go down the shafts without a hat to protect him from rock-falls and he is supplied with carbide free of cost for his lamp. All possible precautions are taken to ensure that there is enough cool air below ground and a great deal of attention appears to be paid for ensuring the safety of the miner. As regards ventilation underground, the following extract from the Report of the Chief Inspector of Mines in Mysore* may be of interest :

" Owing to the great depths of these mines—over 9,000 feet below field datum—and the consequent high temperatures, continuous attention is being paid to the maintenance of an adequate supply of cool air at all working places. This has been effected by the installation of air-conditioning plants which cool the down-cast air by dehumidification before it is conveyed to the bottom levels. These plants which are of the Ammonia Compressor type, have been operating in Oorgaum and Champion Reef Mines with satisfactory results. In the remaining two mines, *viz.*, Mysore and Nandydroog, the preliminary work of sinking air ducts and erecting suitable buildings to house similar plants have been completed but owing to the difficulty of getting the necessary machinery further work has been suspended ".

The mines are lit throughout with electricity.

Considerable attention is paid to sanitary arrangements underground. Latrines have been provided which are kept clean and sanitary by the sweepers employed for the purpose. The Medical Officer of the Mines supervises the sanitary arrangements underground. These precautions are taken to prevent the spread of disease because, as is well known, the absence of such precautions led at one time to considerable sickness among the miners in Cornwall.

Shower baths have been provided in close proximity to the shaft tops where underground workmen can go direct after coming out of the cage and have a bath.

On the surface, the workshops and the other departments have been constructed with due regard to the availability of sufficient light and air. And it appears that the managements are very responsive to any suggestions made by the Mining Inspectorate for improving the Working conditions in the Mines.

On the whole, so far as working conditions underground and on the surface are concerned, they are some of the best to be found in mines in India.

Chapter IV.—Hours of work and shifts.

Both underground and surface workers in the mines work three shifts of eight hours each per day. There is a system in the mines of a weekly change-over of shifts.

The following statement shows the working hours in the different shifts:—

	Underground.	Surface.
Morning shift	7 a.m. to 3 p.m.	8 a.m. to 4 p.m.
Afternoon shift	3 p.m. to 11 p.m.	4 p.m. to 12 M.N.
Night shift	11 p.m. to 7 a.m.	12 M.N. to 8 a.m.

There are no multiple or over-lapping shifts.

In certain general departments such as Workshops, Building and Sanitary Departments, there is only one shift and the working hours are from 8 a.m. to

*Report for 1942-43: pages 7 and 8.

1 p.m. and 2 p.m. to 6 p.m. on week days and 8 a.m. to 3 p.m. on Saturdays. Generally Sunday is observed as a weekly holiday for all the workers except those on essential services and in the Workshops. The working hours of the latter (workshops) are from 8 a.m. to 4 p.m.

Chapter V.—Wages and Earnings.

The Companies have supplied the Committee with a statement showing the minimum and maximum basic wages fixed by them in the different occupations during the pre-war period and since 1942. A copy of this statement is printed as Appendix I. Wages have been standardized in the different occupations and the standardized rates are being paid in all the four mines. There is no system of graded or time-scale promotion as such but in the case of daily-rated men, other than apprentices, the rates are increased biennially upto the scheduled maximum according to the following scale :

When the scheduled minimum of starting does not exceed.	*Wage rate increased by*
10 annas	1 anna
Rupee One	2 annas
Rupees Two	3 annas
Rupees Three	4 annas
Rupees Four	5 annas
Rupees Five	6 annas

Increments are, however, granted subject to satisfactory work.

It is understood that for several years upto about 1940. the basic wage structure in the mines remained unaltered. In that year the basic daily wage rate was increased by one anna and a similar increase was again granted in 1942.

In the year 1942. the Government of Mysore appointed an Officer to enquire into the conditions of labour employed in the Kolar Gold Field. His recommendations on the subject of wages together with the companies' replies thereto are given below :—

Recommendation.	*Companies Reply.*
1. The minimum daily wage of an underground labourer should be annas twelve, of a surface labourer annas nine and of an underground skilled workman Rupee one.	The monthly attendance bonus has been increased by Rupee one as from 1st January 1942. The companies are not in favour of a general increase in wages and point out that with the recent increase in attendance bonus the average daily earnings of an underground employee approximate to Re. one.
2. Periodical increements of wages according to sanctioned scales should be granted.	The companies state that periodical increments are given freely in all deserving cases.
3. It is preferable to merge the attendance bonus in the regular wage and to encourage regular attendance in other ways.	The suggestion is not acceptable to the Mining Companies.

Results of Wage Census.—As the statement supplied by the companies does not provide information regarding the average wages and earnings in the different occupations, a wage census on a sampling basis was conducted in important occupations in the Kolar Gold Fields and the following table contains the information relating to average wages and earnings in the second half of April 1944, for selected important occupations. The occupations covered by the Census account for about 60 per cent. of the total number of employees.

TABLE V.

Occupation.	Total No. of workers.	Average daily basic wage.	Average daily net earnings.	Average net earnings for the fortnight.	Average No. of days worked in the wage period. *
		Rs. a. p.	Rs. a. p.	Rs. a. p.	
UNDERGROUND—COMPANY LABOUR.					
I. *Breaking ground.*					
(1) Machine Mestries	95	1 3 4	1 11 5	21 1 9	12·3 days.
(2) Machine Mestries coolies ..	135	1 0 6	1 7 8	15 15 3	12·5 ,,
II. *Packwalling.*					
(3) Mestries	81	0 15 3	1 7 7	17 7 6	11·8 ,,
(4) Coolies	302	0 9 4	1 1 2	13 2 6	12·5 ,,
III. *Hoisting.*					
(5) Drivers	129	0 12 1	1 3 11	17 0 4	13·7 ,,
(6) Door-boys	264	0 9 5	1 1 2	14 0 7	13·1 ,,
(7) Mestries	225	0 13 10	1 5 6	17 7 6	13·0 ,,
(8) Coolies	192	0 10 4	1 2 3	15 8 6	13·6 ,,
IV. *Tramming.*					
(9) Mestries	86	0 14 7	1 6 5	19 5 6	13·8 ,,
(10) Trammers	296	0 9 6	1 1 4	12 10 7	11·7 ,,
V. *Timbering.*					
(11) Mestries	420	0 13 6	1 4 2	14 11 8	11·7 ,,
(12) Coolies	929	0 9 7	1 1 8	12 12 7	11·6 ,,
	3,154				
UNDERGROUND—CONTRACT LABOUR.—					
I. *Hand Jumpermen (Piece Rate).* †					
(1) Mestries	328	0 13 8	1 9 9	19 0 10	11·8 days.
(2) Coolies	1,870	0 12 2	1 2 3	14 11 1	12·9 ,,
II. *Machinemen. (Time Rate).*					
(3) Mestries	716	1 0 6	1 8 11	17 1 1	11·8 ,,
(4) Coolies	1,371	0 10 11	1 2 8	13 13 2	12·1 ,,
III. *Packwalling (Time rate).*					
(5) Mestries	25	0 12 9	1 5 5	16 6 8	12·3 ,,
(6) Coolies	134	0 9 5	1 1 3	13 8 2	12·5 ,,
IV. *Tramming (Time Rate). (Stuffmen).*					
(7) Mestries	363	0 13 6	1 5 11	16 11 6	12·2 ,,
(8) Coolies	1,320	0 9 4	1 1 8	12 13 7	11·6 ,,
	6,127				

* No. of working days during the wage period : 15.

† For piece-rate workers the average daily basic wage represents the average daily earnings

Occupation.	Total No. of Workers.	Average daily basic wage.	Average daily net earnings.	Average net earnings for the fortnight.	Average No. of days worked in the wage period.*
		Rs. a. p.	Rs. a. p.	Rs. a. p.	
SURFACE—COMPANY LABOUR					
(*Time Rates*).					
1. Furnacemen	18	1 2 5	1 9 4	23 7 1	14·8
2. Sweepers	412	0 5 8	0 11 7	10 5 8	14·3
3. Trammers	38	0 7 6	0 13 7	11 9 6	13·6
4. Coolies (in all the departments)	442	0 8 1	0 14 5	12 6 1	13·7
	910				
ENGINEERING DEPARTMENT.					
(*Surface & underground*)					
1. Machinists	79	1 5 7	2 1 1	24 11 6	12·0 days.
2. Blacksmith	71	1 5 5	1 14 11	22 14 1	11·5
3. Moulders	31	1 5 4	1 13 0	31 4 1	21·7
4. Fitters	277	1 3 4	1 13 6	24 0 0	13·0
5. Welders	10	1 3 3	1 11 2	20 0 8	11·8
6. Drivers	605	1 0 8	1 8 0	21 3 11	14·0
7. Carpenters	135	1 0 5	1 8 4	18 1 5	11·9
8. Pump Attendants	141	0 11 7	1 3 3	16 15 6	14·1
9. Coolies	548	0 9 8	1 0 9	10 4 7	12·9
	1,897				

* No. of working days during the wage period : 15.

NOTE.—The figures in the Tables are provisional.

Considering underground occupations (excluding Engineering) first, it will be seen that the highest paid job is of the Machine Mestry, the basic average wage being Rs. 1-3-4 per day, the total earning including all allowances for the fortnight being Rs. 21-1-9. This earning represents the earning for an average of 12.3 days' work. The lowest basic wage is that of Packwalling coolies, their average daily basic wage being 0-9-4 and earnings including allowances for the fortnight being Rs. 13-6-2. This was on an average the earning for 12.5 days' work.

It is clear from the table that so far as underground company men are concerned, nearly half of the workers are in receipt of a basic wage of about annas nine per day and that their total earnings including all allowances for a fortnight come to about Rs. 13. This class consists mainly of coolies.

In regard to contract labour underground nearly one-third of which works on piece-rate basis, the bulk of the workers seem to earn about 12 annas per day and Rs. 14|- to Rs. 15|- per fortnight. It is to be noted that contract coolie labour underground is engaged on much more arduous work than the company labour.

So far as surface (non-engineering) workers are concerned they are all employed by the companies direct. Among them, the best-paid category appears to be that of Furnacemen, their average daily earnings being Rs. 1-9-4 and average fortnightly earnings being Rs. 23-7-1. Among surface workers, a very large proportion seem to be in receipt of a daily wage varying from annas six to annas eight and a fortnightly earning of Rs. 10 to Rs. 12.

Workers in the Engineering Department who number about 3,000 and are all directly employed by the companies work both underground and on the surface. The table shows that machinists are among the best paid, the lowest paid being coolies. Apart from coolies, employees of this department are mostly skilled or semi-skilled. The highest daily wage is about Rs. 1-5-7 and the highest average fortnightly earnings about Rs. 24-11-6. The bulk of these workers excluding coolies are in receipt of a daily wage of about Rs. 1-1-0 and a fortnightly earning of about Rs. 21-4-0.

In addition to the above figures the wages and earnings of the sampled workers have been analysed according to different income groups and frequency tables containing this information have been prepared which will be found in Appendix II A & B. It will be seen that among the sampled workers nearly one half get a basic wage ranging from annas eight to annas twelve per day, their daily net earnings being Rupee one to Rs. 1-4-0.

Bonuses.—Attendance Bonus.—In order to encourage regular attendance, the companies pay a bonus both to the company and contractors' labour. The amount of the bonus is Rs. 4-8-0 per month to underground workers in receipt of wage not exceeding Rs. 3|- per day, while for surface workers it varies from Rs. 2|- p. m. to those getting As. 6|6 per day to Rs. 4|8|0 p.m. in the case of those getting Rs. 3|- per day. The bonus is paid twice a month. In order to qualify for the bonus no worker either underground or surface can remain absent for more than two shifts (days), out of the total worked during the month.* From the tabulation of the wage census data it is seen that about 90 per cent. of the company labour and 60 to 70 per cent. of the contract labour qualify for this bonus. One of the complaints of the contract labourers has been that the contractors do not always enable them to qualify for the bonus by providing regular work. The details regarding the payment of this bonus will be found in Appendix III.

Other bonuses.—There is also a system in the Mines of paying a number of special bonuses for good work done, such as, packwall bonus, hoist bonus, drive bonus, etc. There are no definite rules governing the payment of these bonuses which are decided upon on the basis of the out-put of an individual. The payment of these bonuses is, however, dependent on a worker qualifying for the attendance bonus. The proportion of workers qualifying for these bonuses is, however, extremely small.

No profit bonus has been paid so far by the Mines.

Dearness Allowance.—The companies have been paying to their employees a cash dearness allowance since 1942. In the following year there was a dispute over this matter between the employers and the employees but an agreement was reached between the parties under the Mysore Labour Act, 1942. A copy of the Agreement is given as Appendix IV. According to this Agreement those drawing Rs. 40|- or below per month get a dearness allowance of Rs. 8|- and those drawing over Rs. 40|- but not more than Rs. 80|- p. m. get Rs. 9|- p. m.† For those getting from Rs. 81|- to Rs. 300|- and over, the allowance varies from Rs. 10|- to Rs. 23|- per month. The dearness allowance granted is not linked up with the cost of living index number for Kolar Gold Field but is, as stated, the result of an agreement between the parties. As will be seen from Appendix I, before the war the lowest wage was annas eight

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* Privilege leave and absence due to medically certified accidents, etc., are not counted as absence for purposes of the bonus.

† Note.—Since April 1945, these rates have been increased to Rs. 9-8-0 and Rs. 10-8-0 respectively.

per day or about Rs. 13|- per month of 26 working days. The attendance bonus paid amounted to Rs. 3-8-0, thus bringing the total earnings to Rs. 16-8-0 per month. Since the war as a result of an increase in the basic wage rates, in the attendance bonus and the grant of dearness allowance, the same worker would get about Rs. 12-4-0 more or about 74 per cent. of his pre-war earnings. On the other hand, it would appear that the cost of living in Kolar Gold Field has gone up by more than 100 per cent. as compared to 1935-36, the Kolar Index Number being 212 for the month of March 1945 (vide Appendix V).

No extra allowance is paid for over-time work but it is calculated on time-work only, that is to say, for the additional number of hours worked the worker is paid *pro rata* on the wages due to him for a normal working period. The Mysore Mines Act, 1906, does not provide for payment of an over-time allowance although the Enquiry Officer, Rajamantrapravina Diwan Bahadur K. Matthan, has recommended the payment of an extra allowance for over-time work.

Wages are paid direct to the workers employed by the companies as also to underground labour engaged through contractors. The control over the payment of wages to contract labour is very effective since the companies themselves maintain the pay registers and also make the payments themselves as, under the Mysore Labour Act, they are held responsible not only for their own labour but also to contract labour employed for purposes of their work.

The wage period was a month until the year 1932. An enquiry made by an officer of the Mysore Government, however, revealed that a shorter wage period, probably a week, would be more in the interests of the workers. The companies have, therefore, now made the wage period half-monthly, and appear to be in favour of the continuation of this system. Although the Payment of Wages Act is not in force in Mysore, the time elapsing between the date on which wages fall due and the day on which payment is made is less than a week.

Fines are rarely imposed and no separate fines fund is therefore maintained. It is, however, understood that the money collected by way of fines is spent on welfare work.

Annual privilege leave with pay.—On the Field the workers are given privilege leave with pay for 21 days in the year in the case of underground workers and 14 days for surface workers. The original rules on the subject have recently been modified by an agreement between the Mining Companies and the Labour Associations under section 10 of the Mysore Labour Act, 1942, liberalising the provisions of the Rules. Leave with pay proportionate to the days of attendance is given as follows :—

TABLE VI.

Under Ground Contract Labour. *Attendance during the year for*	Leave with pay.
260 days	21 days
257 days	19 „
254 days	17 „
251 days	15 „
248 days	13 „
245 days	11 „
242 days	9 „
240 days	7 „
Underground Company Labour.	
280 days	21 days
277 days	19 „
274 days	17 „

Underground Company Labour—contd.

271 days	..	..	..	..	..	..	15	days
268 days	..	..	..	..	..	..	13	„
265 days	..	..	..	..	..	..	11	„
262 days	..	..	..	..	..	..	9	„
260 days	..	..	..	..	..	..	7	„

Surface labour.

280 days	..	..	..	..	..	..	14	„
277 days	..	..	..	..	..	..	12	„
274 days	..	..	..	..	..	..	10	„
271 days	..	..	..	..	..	..	8	„
270 days	..	..	..	..	..	..	7	„

Sick Leave.—Under the Standing Orders the following provision has been made for sick leave :—

" On the recommendation of the Companies' Medical Officer, and at the absolute discretion of the Superintendent, sick leave may be granted.

The Superintendent may also authorise pay at sick pay rates for the period of sick leave, and travelling expenses to the village. Travelling expenses shall not exceed the cost of railway travel to Madras or Calicut as the case may be plus batta at Re. 1 per day ".

The following is the schedule of sick pay :—

TABLE VII.

When the wages are up to and including						Sick pay per day.
6 annas per day	..	..	..	..	..	Full pay.
7 annas per day	..	..	..	..	..	six annas.
8 annas per day	..	..	..	..	..	six annas.
9 annas per day	..	..	..	..	..	seven annas.
10 annas per day	..	..	..	..	..	seven annas.
11 annas per day	..	..	..	..	..	eight annas.
12 annas per day	..	..	..	..	..	nine annas.
13 annas per day	..	..	..	..	..	ten annas.
14 annas per day	..	..	..	..	..	ten annas.
15 annas per day	..	..	..	..	..	eleven annas.
Rupee one per day	..	..	..	..	..	twelve annas.
Above one rupee	..	..	..	..	..	75% of his daily rate.

Chapter VI.—Housing.

No housing has been provided by the Mysore Government on the Kolar Gold Field for the workers but the companies themselves have done so. At the end of June 1944, there were 12,348 huts provided for the labour by the companies. Of these, 10,404 were of bamboo thatties, 1,358 in reinforced concrete and 586 in masonry. The worker's hut is either single or double-roomed. The former consists of a room and a kitchen with a front open verandah. Huts are constructed in lines but are independent. The single hut is about 18ft. × 9ft. and the double hut 24ft × 9ft. The average number of persons per hut is about 5.25. The rent charged for a single hut is annas eight and for a double-hut Re. 1 to Rs. 1-4-0 per month. For the double-huts separate bath rooms are provided. The huts are ventilated by windows and there is intervening air space between them. The lines are lit by electric lights and water is laid on at convenient intervals there being no separate taps for each hut. No electric light is, however, provided in the tenements themselves. There is separate common provision for latrines for males and females. Seventyfive per cent. of the latrines are of the " pan " type, the remainder being either of the septic tank or open type. For a total male population in the companies' area of about 30,000 persons, 215 latrines with nearly 1,500 seats are provided, while for a total female population in the companies' area of about 33,000, 186 latrines with about 1,273 seats are provided.

The proportion of workers housed is about 76 per cent. of the total. The workmen's lines are divided into sectors with an Assistant Sanitary Overseer in charge. The surroundings of the houses are clean and the lines have been well laid out. The grounds are kept clean and there is a Sanitary Maistry in charge of blocks containing 250 to 300 houses to look after their cleanliness and sanitation. One noticeable feature of these colonies, however, is that being unsheltered they are somewhat dreary. It is understood that efforts are being made to plant trees in these colonies.

Housing Rules.—There are certain conditions attached to the allotment of houses to employees of companies on the Kolar Gold Field. These are called " Housing Orders " and are to be found in Appendix 3 to the Standing Orders for Employees. A copy of these orders will be found in Appendix VI. Except in the case of the West Coast men for whom group accommodation is given, bachelors are not allotted any houses. The allotment of housing is conditional on satisfactory attendance and good service record but when there is more than one applicant for a house, allotment is generally made by raffle from among those applicants suitably qualified. These housing orders not merely regulate conditions for the allotment of houses but in an indirect manner ensure the health of the mining community. For instance, anybody accepting a house must follow the instructions given by the Chief Medical Officer or his staff as regards vaccination, inoculation, sickness, sanitation, etc. Moreover, all cases of births, deaths, sickness, etc., have to be reported immediately to the Sanitary authorities. Incidentally, while the tenants are allowed to exercise ordinary tenancy rights, a person who has been prohibited entry into the lines by the Superintendent of the Company cannot be harboured by any person occupying the companies' premises. A somewhat novel feature of these orders is that they lay down that the occupants of the houses shall observe the judgments of the Punchayats that have been appointed for settling local disputes and maintaining peace and tranquility in the lines, if such judgments are endorsed by the Superintendents of the Companies.

The housing provided by the employers being in the mining area itself, the distance from the quarters to the place of work does not exceed a mile in any case. There is a Post Office and a Market within easy distances of the workmen's quarters.

As in most other places in the country there is considerable congestion and difficulty about obtaining suitable houses at Oorgaum. Workers who are unable to live in the companies' colonies are, therefore, put to a great deal of difficulty. They generally live in small huts outside the mining areas and are required to pay a rent varying from Rs. 2 to Rs. 5 per month. The conditions in these huts are extremely unsatisfactory.

There have been complaints on the part of the workers' representatives in regard to the inadequacy of the floor area per tenement in the companies quarters. It appears, however, that while wanting to improve the conditions the managements are unable to make much progress in this direction owing to the difficulty of getting suitable building material at reasonable cost. In this connection it may be stated that the Enquiry Officer appointed in 1942, has made a definite recommendation that 7,000 more huts should be provided and that the thatti walls of the existing huts should be replaced by masonry or concrete walls.

Considering, however, that this is a very old established colony and considering further that the mines have for a number of years been a very prosperous concern, it is somewhat surprising that the bulk of the workers

should be housed in flimsy bamboo thatti houses. The managements' explanation for building this type of structure was that in case of an epidemic they could all be burnt down.

On the whole it would appear that while the companies have devoted considerable attention to the lay-out of these colonies and to their general cleanliness and sanitation, a great deal still remains to be done for increasing and improving the accommodation which has been provided. For instance, the thatti houses provide but inadequate shelter during the rains because of leakage, etc. Nor can night shift workers hope to get proper rest in these during the day time because of inadequacy of the accommodation provided. In a compact colony like this, which a large proportion of the workers have made into their adopted home as is seen from the figures of the length of service, it should be possible to provide them with pucca houses if need be through a Housing Society, and further to supply to each individual family such elementary amenities as a water tap and a latrine. In Mysore where electric power is plentiful and cheap, perhaps the supply of electric lights in the homes of the workers will not entail too great a financial burden on the employers concerned while adding materially to the comfort of the workers.

Chapter VII.—Welfare Work.

All the four Mining Companies situated on the Kolar Gold Field have, for a long time now, taken keen interest in the welfare of their workers and have endeavoured to look after the health and well-being of their operatives and their families. In order to achieve this object, they have constituted a Central Welfare Committee which comprises the Superintendent from each mine, the Chief Medical Officer, the Secretary, Kolar Gold Field Mining Board and the Welfare Officer. The function of this Committee is to co-ordinate all welfare work and to allocate funds for various activities. Each mine has, however, its own welfare committee consisting of members from each department of the mine with a majority of Indians. The duties of these committies are to make proposals for consideration by the Central Welfare Committee. The Welfare Officer, who is a whole-time officer, is in charge of carrying out the welfare activities decided upon by the Central Committee.

On the Kolar Gold Fields, there are certain special features in regard to welfare work. For instance, cattle sheds have been constructed in all housing colonies accommodating about 200 heads of cattle each. The charge for their use to cattle owners is annas four per month for a cow and annas two for a goat. These are kept scrupulously clean. The companies have also supplied Dhobi Khanas in the housing colonies where the workers and their families can do their own washing.

There are five Maternity Homes for the use of the workers' families and these are very largely patronised. It is reported that 78 per cent. of the births on the mines take place in these Homes. The total number of children born in these Homes up to 31st March 1943, was 11,515. Each Home contains about 12 beds. No fees are charged to the patients who are also provided with free coffee, milk and bread. For under-nourished mothers and babies milk and shark liver oil are also supplied free of charge. There is a Lady Health Visitor for each mine and ante-natal clinics are run in conjunction with the Maternity Homes.

The companies maintain a well-equipped hospital with 250 beds for medical relief to their workers and their families. The Hospital is in charge

of a fully qualified Chief Medical Officer assisted by seven other doctors. Free in-patient and out-patient treatment is available in the hospital. In addition, daily-rated persons who are treated in the hospital are given sick pay accerding to their daily wages. Each mining company maintains a motor ambulance and other forms of transport for conveying the sick and the injured workers to the hospital free of charge. Although treatment is easily available in the hospital there would appear to be a need of starting small dispensaries in the Workmen's lines for attending expeditiously to minor ailments.

Education.—Primary education is entirely free and in addition to Government Schools, there are also schools on each mine, subsidised and controlled by the Mine Welfare Committee. Night Schools have been opened on each mine for the operatives. A fee of annas four per month is charged. The lack of continuity in the instruction in the night schools due to the fact that the students work on three shifts. It would appear that this difficulty can be met by suitable modification of the hours during which instruction is imparted to adult workers.

Recreation.—There are a large number of Sports Clubs on the Field. These clubs are run by the members themselves. The clubs have sports and badminton grounds. Indoor games consist of ping-pong, carrom, draughts, darts, etc. All sports goods are supplied to the clubs by the Central Welfare Committee at half the cost. Each club has its own Library and Reading Rocm facilities. Sporting tournaments are frequently held.

Entertainments.—There are five dramatic halls on the Field equipped with the necessary stage, lighting and scenario. In ordinary times about 250 dramas are held per year. The dramatic companies consist of employees of the companies and are paid Rs. 10 towards expenses for each show. There is also an open air Cinema and two performances are given each week on all the mines. These shows are entirely free.

The Scout movement has made considerable progress on the Kolar Gold Field and there are associations of Boy Scouts and Girl Guides.

The Mining Companies show a sympathetic interest in the religion of their work-people by erecting temples and churches and by giving liberal donations for their construction.

Provident Fund.—There is a private unregistered Provident Fund in operation in the mines since 1940, but it is restricted only to those getting Rs. 150 p.m. or over. Thus, the majority of both skilled and unskilled workers remain out of its purview.

Service Gratuity.—There is a system of Service Gratuity for those getting less than Rs. 150 p. m. For purposes of payment of gratuity the wage does not include the attendance bonus. According to the scale of gratuity in operation since 1940, workers in the lowest income category, namely, those between one anna and twelve annas per day, working underground, could get after ten years' continuous service Rs. 25 and after 40 years' service Rs. 260, the corresponding figures for surface workers being Rs. 25 and Rs. 190; underground workers getting Rs. 1|8|- per day receive Rs. 65 after 10 years' service and Rs. 470 after 25 years' service while surface workers getting the same receive Rs. 65 and Rs. 350 for the corresponding service periods. It will thus be seen that a worker who had reached an income group within which the average income of the whole mining community, would fall would hope to get after 40 years service a sum of less than Rs. 500 at the time of retirement. It is understood that gratuity is payable only in case of medical unfitness, retrenchment or death.

The qualifying period for gratuity was originally ten years' service but this has recently been lowered to five years for the duration of the War and the scale of payment has also been made more liberal. This was done as a result of an agreement between the parties under the Mysore Labour Act. The following is the revised scale of payment :—

(a) Where the scheduled amount of the gratuity does not exceed Rs. 60.	By the addition of Rs. 50.
(b) Where it exceeds Rs. 60 but does not exceed Rs. 200.	By the addition of 50 per cent.
(c) Where it exceeds Rs. 200 but does not exceed Rs. 700.	By the addition of 25 per cent.
(d) Where it exceeds Rs. 700.	By the addition of 10 per cent.

NOTE.—Border line amounts in the grade proposed above shall be smoothed out according to the schedule.

The companies have, on the whole, followed a very forward policy in regard to labour welfare, particularly in the matter of medical aid and maternity and child welfare. According to them the total cost on welfare work for the year ending March 1944 was Rs. 83,837, the average cost per head being about Rs. 3-5-0 per annum. No doubt there is room for further improvement particularly in regard to the question of interesting the workers in healthy out-door sports and recreation. Perhaps better results can be expected if in devising welfare schemes the workers and their representatives are freely consulted and the recreational needs of the rank and file more precisely determined.

It is true that many large employers of labour in India have failed to make any provision for the future of their employees and to that extent the miners at Kolar are fortunate in having a scheme of Gratuity for their benefit. At the same time the extension of the Provident Fund Scheme to a larger percentage of the miners may help to safeguard their future more adequately considering the hazards of their occupation and the lucrative character of the industry. In regard to the gratuity paid there have been complaints that the condition regarding medical certification impedes voluntary retirement. Most gratuity schemes in the country do not appear to contain such a condition and the question of making the payments on the basis of length of service only is one that might be sympathetically considered. Moreover, in most gratuity schemes the rate of payment is either half a month's or a full month's wage for each year of service. In the Kolar Gold Field the rate seems to be on the low side and appears capable of improvement in an upward direction.

Chapter VIII.—Relationship Between Employers and Employees.

Standing Orders.—The relations between the employers and the employees on the Field are governed by the Standing Orders framed under the Mysore Labour Act.

Trade Unions.—Fortunately, in each of the mines there is a Labour Association registered under the above Act which is recognised by the Management. These four Associations have between them a membership of about 8,000, out of a total of about 20,000 workers. The Associations, it is understood, are taking fairly keen interest in the affairs of their members and have, from time to time, served notices of change on the employers under the Mysore Labour Act.

There has been so far no agreement regarding wages but agreements have been concluded by the Mining Companies with the Labour Associations under the Mysore Labour Act, in the matter of payment of dearness allowance, service gratuity scale, privilege leave, etc.

Labour Officer.—The four mining companies have only one Labour Officer common to all of them and attached to Messrs. John Taylor & Sons Committee. This is a Central Committee constituted to co-ordinate the activities of the Mining companies on the Field and to lay down policies and procedure to be followed by the Mines in regard to various matters of common interest to the companies. Each company makes a financial contribution to the committee for its expenditure on staff and other recurring charges.

The functions of the Labour Officer on the Field are somewhat different from those of Labour Officers employed in other industries. He is more a legal adviser to the companies on several matters arising from Notices of Change given under Section 10 to the Mysore Labour Act, by the Labour Associations. He assists the company management whenever called upon to do so in the investigation of complaints. The labourers have, however, no direct access to him to secure the redress of their grievances.

Strikes.—The mines on the Field have been singularly free from labour unrest and for a period of about ten years, between 1930 and 1940, there was no major strike. Since the outbreak of the War, however, there have been three strikes arising mainly out of questions of dearness allowance, gratuity, etc. In all these cases the strikes have been partially successful and the managements have endeavoured to meet the workers' reasonable demands. A statement containing the details of these strikes is attached as Appendix VII.

On the whole, the relations between the employers and the employees on the Field are cordial and there is no bitterness between the two. There is, however, a general feeling among the workers that there should be a substantial improvement in their earnings by an increase in the wage rates. Moreover, there appeared considerable concensus of opinion among the representatives of the workers that contract labour should be abolished as early as possible in as much as contract labour comes in the way of the improvement of their own conditions. So far as those working with the contractors are concerned they seem eager to be in the direct employ of the Companies in view of the better conditions of work and wages and the greater security of tenure prevailing in the employment of the companies.

Chapter IX.—Legislative Enactments Applying to Labour in the Mines.

The following Acts apply to the labour employed on the Field :—

1. The Mysore Mines Act, 1906,
2. The Mysore Maternity Benefit Act, 1937 (as amended by Act, 1943),
3. The Mysore Workmen's Compensation Act, 1928, and
4. The Mysore Labour Act, 1942.

The Mysore Mines Act, 1906, regulates the conditions of employment of labour in the Gold Mines. The Act provides for the maintenance of an Inspecting Staff and contains provisions designed to secure the safety of workers in the mines. The Act prescribes the inspection of mines and enquiry into accidents. The daily and weekly hours of work have however not been laid down in the Act. Penal provisions exist for infringements of the provisions of the Law.

Rules have been made under the Act providing, among other matters, for conducting examinations of candidates by the Department of Mines for the grant of certificates of Mestries, Blasters, and Engine Drivers.

The Mysore Maternity Benefit Act which originally applied only to registered factories was made applicable to Mines in 1943. According to the provisions of this Act, women employees are entitled to a maximum of eight weeks leave for labour confinement and during this period they get benefit at the rate of the average daily wages or annas eight per day whichever is less. As the Act has been recently made applicable to the Mines no statistics of cash benefit are available.

Workmen's compensation.—The Mysore Workmen's Compensation Act was passed in the year 1928. It conforms to the British Indian Act with the exception of Section 4(1)D relating to the waiting period. While under the British Indian Act half-monthly payments for temporary disablement are payable commencing from the eighth day of accident, in Mysore they are payable from the date of accident, provided the disablement exceeds seven days.

According to the memorandum furnished by the Commissioner of Labour in Mysore, however, the working of this Act has not been satisfactory as will be seen from the following :—

" The Act requires radical improvements in favour of the workmen who do not derive as much benefit from its provisions as was intended by the sponsors of the Act, in view of the numerous technicalities introduced in it which were working great hardship to ignorant work-people and the employers are benefitting therefrom at the expense of the workmen. All such technicalities should be modified, making the employers responsible for taking action in favour of the workmen, taking into consideration the ignorance of the workmen and also the fact that any insistence on their part in any matter might possibly bring about the displeasure of the employers. The employees are always at a disadvantageous position and everything should be done in their favour by the employers, and the Act should provide for all the benefits that the employees should obtain without throwing on them the responsibility for knowing the intricacies of the law and claiming what is due to them, observing the technical details of the prescribed procedure. The intentions of the Legislature are not fulfilled in practice in view of the provisions therein which cannot be strictly followed mainly owing to the ignorance of the workmen ".

The following table contains information relating to the number of accidents and the amount of compensation paid under the Act during the years 1940-41, 1941-42, and 1942-43 :

TABLE VIII.

Year	No. of accidents.				Amount of compensation paid.			
	*F.	P.D.	T.D.	Total.	F.	P.D.	T.D.	Total.
					Rs.	Rs.	Rs.	Rs.
1940-41	37	32	2,236	2,305	25,533	19,021	22,678	67,232
1941-42	67	23	2,544	2,634	41,940	18,036	26,909	86,885
1942-43	43	18	2,173	2,234	37,371	11,516	31,757	80,644

* F.—Fatal accidents.
P.D.—Permanent disablement.
T.D.—Temporary disablement.

In recent years it has come to the notice of the Government that in the Kolar Gold Field the workers were exposed to the risk of silicosis, an industrial disease caused by quartz dust. The Mysore Silicosis Rules were therefore framed under the Mysore Workmen's Compensation Act, 1928, which came into force from January 1940. The symptoms of advanced silicosis are cough and subsequent spitting of blood. In all its stages it greatly resembles tuberculosis. There are three stages of the disease, ante-primary, primary and secondary. It is understood that in Canada experiments are being made to spread aluminium dust in gold mines to prevent silicosis but so far the results of these experiments are not known.

The following table gives the number of cases of silicosis and the amount of compensation paid since the introduction of the Mysore Silicosis Rules in 1940 to end of June 1943 :

TABLE IX.

Year.	No. of cases.	Amount of compensation paid.
		Rs.
1940-41	402	2,31,882
1941-42	644	2,45,993
1942-43	778	3,92,590

It will be noticed from the above table that the number of silicosis cases is on the increase. These figures, however, do not reveal the total incidence of the disease as it is understood that the condition becomes recognizable clinically only in the relatively advanced stages of the disease. It is also understood that at such a stage the disease has probably caused serious damage to the lung tissue entailing permanent disability.

Silicosis cases are examined and certified by the Companies Medical Officers and only disputed cases are referred to the Medical Bureau constituted under the Mysore Silicosis Rules.

It will thus be seen that the miners would be subjected to careful medical examination only when the symptoms of the disease become evident. Considering that silicosis is now a recognized hazard of the industry attempts must be directed not only towards its certification but towards its prevention and early detection. It is understood that in other countries where this hazard occurs, a system of mass radiography has proved beneficial. It may be suggested therefore that all the miners exposed to this risk should be periodically examined radiologically preferably by methods for mass examination, such as those adopted in Cleveland, Ohio or in the recruitment of the U. S. Army.*

It is understood that the Government of Mysore have sanctioned a scheme for a survey of occupational diseases prevailing in several industries in the State and that action is being taken to appoint an experienced and qualified Medical Officer for the purpose.

The Mysore Labour Act.—The Mysore Labour Act which was enacted in 1942, provides for the registration and recognition of Labour Associations in industrial undertakings employing 100 or more persons daily, for settling Standing Orders which would be determinative of the relations between employers and employees and for the prevention and peaceful and amicable settlement of industrial disputes.

A special feature of this Act is that it prevents the formation of rival labour Associations in the same industrial unit.

* I am indebted to Dr. V. R. Khanolkar, M.D. (Lond.), for this suggestion.

Chapter X.—Indebtedness of Workers.

In their reply to the Committee's questionnaire the Government of Mysore have stated that no survey of indebtedness among industrial workers has been conducted, and definite information on the subject is, therefore, not available. It would, however, appear from Mr. M. A. Srinivasan's Report, 1931, on the economic and social conditions of labour in the Kolar Gold Fields that in the year 1930-31, out of 50 families surveyed by him no fewer than 48 were in debt, the average indebtedness per family being Rs. 199 or about six months' earnings. Among the causes of indebtedness he refers to the excess of expenditure over income as one of the principal causes, the others being unemployment, sickness, social obligations, such as marriages, etc.

The mining companies have stated that the employees are indebted but have not been able to furnish any details. Nor has it been found possible in the course of this enquiry to conduct any intensive investigation into this matter. However, from such impressions as the Investigator concerned was able to gather from his talks with workers, their representatives and Government officials, it would appear that more than half of the workers are in debt. Those largely indebted are to be found in the income group below Rs. 35|-. p.m. In this connection it may be noted that on an average the miner's family consists of about 5.25 persons and that unlike industrial workers in other places there is only one earner in the family as there is not much scope for the employment of either women or children in the family. The large size of the family and the present day high cost of living are no doubt factors contributing to the indebtedness of the workers. At the same time it is in evidence that most of the miners are addicted to toddy and often spend nearly one-third of their income on it. The only exception to this is the workers coming from West Coast (Moplahs, Nairs, etc.), who account for about 10 per cent. of the miners. Even the representatives of the miners admitted that the mining community was spending disproportionately on toddy. Apart from this, social customs are a contributory cause of indebtedness.

It is understood that the amount of debt varies from a month's wage to about four months' wages and that the usual rate of interest paid is annas two to annas four per rupee per wage period which is a fortnight. Mostly the amount is advanced on personal security only. The interest is deducted in advance and the amount recovered during the next wage period. The principal money-lenders are the Marwaris, and petty shop-keepers. It is understood that some of the well-to-do workers also clandestinely ply the money-lending trade. The toddy vendors are also known to allow easy credit to the workers and to charge higher prices for the drink sold.

According to the Mysore Money Lenders' Act XIII of 1939, all money-lenders have to take a licence and they are prevented from charging interest at more than 9 per cent. per annum. It is, however, understood that the Act is being circumvented and that also some non-licensed persons advance money at high rates of interest. The Government of Mysore have themselves been aware of this, as will be seen from their Order, dated 17th April 1942 on the Enquiry Officers' Report which is published as Appendix VIII. The Mysore Code of Civil Procedure has recently been amended and it forbids the attachment of wages below Rs. 50|- p. m.

Thus, in spite of efforts of the Government it would appear that credit is still easy and that extortionate rates of interest still continue to be demanded and paid. It is common knowledge that credit in this country is too easy and

is one of the contributory causes of the large indebtedness of individual workers generally. At the same time the prevailing level of wages makes it incumbent that the worker must have some avenues open to him for obtaining loans at reasonable rates. One way of meeting this problem is for the employer to make advances and another for workers' co-operative societies to undertake this function. It is understood that some of the Labour Associations in Oorgaum have started credit societies. As they have just started functioning it is too early to say to what extent, if any, they will be able to deal with the problem of indebtedness in Oorgaum. As this is a fairly homogeneous and compact colony, societies like these should ordinarily succeed and if they require any facilities on the part of the employers either for advances or recoveries such aid should be forthcoming.

Chapter XI.—Summary and Conclusions.

The town of Oorgaum in which the Kolar Gold Field is situated might as well be called a Gold Town, because it is as a result of the exploitation of the gold mines there that the town has sprung up. A colony of workers has now lived there for more than 50 years and some of the workers have made it their adopted home. It is unnecessary here to summarise the various details discussed in previous sections relating to the work and welfare of the mining community. There are, however, a few matters which need emphasis and probably further clarification. There is no doubt that until recently when the Mysore Government imposed a duty on the gold produced the mining companies have been extremely prosperous and according to a rough estimate it is found that they have made by way of dividends probably many times their initial capital. In regard to the workers it must be admitted that so far as the working conditions inside the mines are concerned they are admirable and neither thought nor resources have been spared in making them as comfortable and as safe as possible. It is refreshing to note, as stated already, that any suggestions for improvement of working conditions by the Mining Inspectorate are listened to with attention and more often than not, carried out, although it may mean for the companies a large initial outlay of funds. Every attempt seems also to be made both by the energetic Inspectorate and the Mining Companies to keep down the incidence of accidents as low as possible.

In regard to wages it is gratifying to note that the four Mining Companies have adopted standardisation of occupations and wage rates. Although there is no system of time-scale promotions, the workers can always look forward to getting an increment after putting in a certain amount of approved service. There is one matter which calls for attention and it is this that although there is no longer any special reason for maintaining contract labour which does not receive the same conditions of service as the company labour, it continues to be retained for no other reason than that it has existed from the start. The amount of dearness allowance which is being paid compares favourably with the scale of allowances paid in other industries in Mysore State but does not, as already shown, compensate the worker anywhere near the extent of the increase in the cost of living. Moreover, the basic wage level although again comparing favourably with the wage level prevailing in other localities in South India, is not such as would leave a margin for savings to the workers even for meeting their ordinary social obligations. There is a tendency to regard expenditure on these as mere extravagance but it should be remembered that a worker is part of a social organisation and has perforce to conform to certain social standards even if he is not in a position to do so. In these matters the individual is often helpless.

Particular mention might also be made of the fact that miners in gold mines are exposed to the risk of the occupational disease known as silicosis. No doubt, this has now been notified under the Workmen's Compensation Act and compensation is being paid to those condemned to this disease. Monetary compensation, however, cannot fully compensate the sacrifice of a human life brought about by the nature of his work, and as suggested already, precautions need to be taken for the prevention of the disease.

The companies have, no doubt, followed a very progressive policy in regard to the leave which they allow to their work-people. Few concerns in the country will be found giving the workers privilege leave for three weeks with pay in a year and also sick leave with pay at their discretion. Moreover, there is provision for safeguarding the future of the worker by way of granting a gratuity. There is, however, much room for improvement both in regard to the scales and the conditions attached to the payment of the gratuity. As a matter of fact, a more satisfactory approach from the point of view of safeguarding the workers' future would be to institute a compulsory system of Provident Fund on a liberal basis. In this country where there are no old age pensions, a hard-working industrial worker is often obliged after years of faithful service either to live on charity or to be at the mercy of others during old age and invalidity in the absence of proper provision for the future made by the employer.

In regard to housing, in a town like Oorgaum which has sprung up because of the mines, it is only to be expected that the employers should make provision for the living accommodation of all the work-people employed by them. It seems a pity that when times were more normal and the concerns more prosperous the companies did not build houses sounder in structure than the thatti huts which they have erected. On the whole, however, the housing colonies nave been well laid out and although there is room for a great deal of improvement by way of providing further amenities, it cannot be stated that slums have been created as a result of the exploitation of these mines.

The companies have, from the very start, laid considerable emphasis on the welfare of the workers and judging from standards prevailing in this country it can be stated that reasonable provision has been made in this behalf. The workers' health has been well looked after and the companies have also assumed responsibility for safeguarding the health and safety of the miners' families.

The relations between the employers and the employees are on the whole cordial. It is gratifying that there are recognised Labour Associations of workers in the mines. In a compact colony like the one at Oorgaum there is great scope for co-operative action on the part both of the employers and the employees and it is to be hoped that they will come still closer together and work in a spirit of mutual trust and responsibility in order to increase the welfare and well-being of the mining community at Oorgaum.

S. R. DESHPANDE,
Member,
Labour Investigation Committee.

SIMLA,
The 4th May, 1945.

APPENDIX I

Wages on the Kolar Gold Field (Mining Companies only).

S. No.	Occupation.	Time or Piece.	Pre-War. Min. Rs. A.	Pre-War. Max. Rs. A.	Since 1942. Min. Rs. A.	Since 1942. Max. Rs. A.	Remarks.
1	Indian Foremen	T	1 4 to	3 0	1 14 to	6 0	
2	Head Mestries	T	1 0 „	1 8	1 6 „	1 15	
3	Mestries	T	0 10 „	0 15	0 12 „	1 5	
4	Coolies..	T	0 8 „	0 10	0 9 „	0 12	
	SPL. CLASSIFICATION.						
5	Bell Fitter Foremen	T	1 10 „	2 7	1 11 „	2 8	
6	Bell Fitters	T	0 14 „	1 5	0 15 „	1 6	
	BREAKING GROUND—BY MACHINE.						
	(a) *Stopes & Developments excluding Shaft Sinking.*						
7	Mestries	T	0 14 „	1 5	0 15 „	1 6	
8	Machinemen	T	0 12 „	0 14	0 13 „	0 15	
	(b) *Shaft Sinking.*						
9	Head Mestries	T	1 8 „	2 0	1 9 „	2 1	
10	Mestries	T	1 0 „	1 8	1 1 „	1 9	
11	Machinemen	T	0 12 „	1 0	0 13 „	1 1	
	(c) *Rock Drill Adjustment.*						
12	Rockdrill Cleaners	T	1 0 „	1 8	1 1 „	1 9	
	BREAKING GROUND—BY HAND. *Piece Work.*						
13	Hand Jumper Mestries	P	0 14 „	1 5	0 15 „	1 6	
14	Hand Jumper Coolies	P	0 5 „ (Per ft. drilled).	0 8	0 5 (Per ft. drilled).	0 8	
	MISC. UNDERGROUND LABOUR.						
15	Scavenger Mestries	T	0 12 to	1 2	0 13 to	1 3	
16	Scavengers	T	0 10 „	0 11	0 11 „	0 12	
17	Pipe Fitters	T	0 14 „	1 5	0 15 „	1 6	
18	Pipe Fitter Coolies	T	0 9 „	0 12	0 9 „	0 12	
19	Fitter Mestries	T	3 0 „	4 8	3 0 „	4 8	
20	Fitters	T	0 9 „	3 0	0 13 „	3 0	
21	Drivers, Hoists (small) and Elec. Loco. ..	T	0 9 „	2 0	0 10 „	0 15	
	MISC. SURFACE LABOUR.						
22	Carpenters	T	1 0 „	1 8	1 1 „	1 9	
23	Mestries	T	0 12 „	1 2	0 12 „	1 3	
24	Coolies..	T	0 3 „	0 6	0 4½ „	0 8	
	BANKSMEN, SIGNALLERS, ETC.						
25	Shaft Head Chargeman	T	2 8 „	3 12	2 9 „	3 12	
26	Banksmen	T	1 0 „	2 10	1 1 „	2 11	
27	Signalmen	T	0 9 „	1 4	0 10 „	1 6	
	SURVEYING.						
28	Head Mestries	T	1 8 to	2 0	1 9 to	2 1	
29	Mestries	T	1 0 „	1 8	1 1 „	1 9	
30	Coolies, ordinary	T	0 8 „	0 9	0 9 „	0 10	
	SAMPLING.						
31	Head Sample Mestries	T	1 5 „	2 0	1 6 „	2 1	
32	Underground Sample Mestries	T	0 14 „	1 5	0 15 „	1 6	
33	Underground Samplers	T	0 10 „	0 12	0 11 „	0 13	
34	Coolies, ordinary	T	0 8 „	0 9	0 9 „	0 10	
	ASSAYING.						
35	Furnacemen	T	0 9 „	1 8	0 10 „	2 0	
36	Samplers	T	0 9 „	0 12	0 10 „	0 13	

Wages on the Kolar Gold Field (Mining Companies only)—contd.

S. No.	Occupation.	Time or Piece.	Pre-War Min. Rs. A.	Pre-War Max. Rs. A.	Since 1942. Min. Rs. A.	Since 1942. Max. Rs. A.	Remarks.
	FITTERS.						
37	Fitter Mestries	T	1 10 to	2 10	1 11 to	2 11	
	MOTOR & PUMP ATTENDANTS.						
38	Motor Attendants	T	0 8 „	0 12	0 9 „	0 13	
39	Pump Attendants	T	0 8 „	0 12	0 9 „	0 13	
	STAMP MILL SHIFT.						
40	Battery Attendants	T	0 7 „	0 14	0 8 „	1 0	
	TUBE MILL SHIFT.						
41	Blanket Stitchers	T	0 8 „	0 12	0 10 „	1 6	
	SLIMES PLANT.						
42	Filter Mestries	T	0 15 „	1 6	1 0 „	1 8	
43	Filter Attendants	T	0 9 „	0 14	0 10 „	0 15	
44	Leaf Stitchers	T	0 14 „	1 5	0 10 „	1 6	
45	Collector Coolies	T	0 8 „	0 9	0 9 „	0 12	
46	" Clean Up " & " Smelting " Coolies ..	T	0 8 „	0 12	0 9 „	0 13	
	PLATE LAYERS.						
47	Plate Layer Mestries	T	0 11 „	1 0	0 12 „	1 1	
48	Plate layers	T	0 8 „	0 10	0 9 „	0 11	
	TRANSPORT OF ORE & SORTING & CRUSHING STATION.						
49	Sorting & Crushing Station—Foremen ..	T	1 8 „	2 4	1 9 „	2 5	
50	Sorting & Crushing Station—Mestries ..	T	0 14 „	1 5	0 15 „	1 6	
51	Conveyor Belt Mestries	T	0 10 „	0 15	0 11 „	1 0	
52	Black Rock Mestries	T	0 10 „	0 15	0 11 „	1 0	
53	Traming Mestries	T	0 10 „	0 15	0 11 „	1 0	
	MISCELLANEOUS.						
54	Gang Mestries	T	0 12 „	1 2	0 13 „	1 3	
55	Coolies..	T	0 7 „	0 8	0 7 „	0 9	
56	Boys	T	0 3 „	0 6	0 3½ „	0 6½	
57	Women	T	0 3½ „	0 5	0 4 „	0 5½	
	ENGINEERING DEPARTMENT.						
58	Shop Mestries	T	*2 8 „	4 8	1 8 „	4 8	
	FITTING SHOP.						
59	Fitters	T	0 11 „	2 8	0 12 „	2 9	
60	Machinists	T	0 8 „	2 8	0 9 „	2 9	
61	Tinkers	T	0 10 „	1 8	0 11 „	1 9	
	MOULDING SHOP.						
62	Moulders	T	0 11 „	2 0	0 12 „	2 1	
63	Furnacemen	T	0 11 „	1 0	0 12 „	1 1	
64	Pattern Makers	T	0 10 „	1 8	0 11 „	1 9	
	Carpenter Shop.						
65	Carpenters	T	0 9 „	1 14	0 10 „	1 15	
66	Sawyers	T	0 8 „	1 8	0 9 „	1 9	
67	Saw Sharpeners	T	0 10 „	0 15	0 11 „	1 0	
68	Painters & Polishers	T	0 8 „	1 8	0 9	1 9	
	Blacksmith's Shop.						
69	Blacksmiths	T	0 8 „	2 0	0 9 „	2 1	
70	Hammermen	T	0 8 „	0 12	0 9 „	0 13	
	Drill Sharpening Shop.						
71	Jumpersmiths	T	0 8 „	1 2	0 9 „	1 13	

*Pre-war there were 2 grades of Rs. 2-8-0 to Rs. 3-12-0 and Rs. 3 to Rs. 4-8-0. Since 1942, however, they were discontinued and the present scale introduced to give better opportunities to those starting in the lower scales to reach the highest wages.

Wages on the Kolar Gold Field (Mining Companies only)—contd.

No.		Time or Piece.	Pre-War. Min. Rs. A.	Pre-War. Max. Rs. A.	Since 1942. Min. Rs. A.	Since 1942. Max. Rs. A.	Remarks.
	Boilers Shop.						
72	Platers & Boilersmiths	T	0 13 to	1 14	0 14 to	0 15	
73	Boilersmiths Asets & Rivet holders ..	T	0 8 ,,	0 12	0 9 ,,	0 13	
74	Arc & Acetylene welders	T	0 10 ,,	2 6	0 11 ,,	2 7	
	MISCELLANEOUS.						
75	Engineering Gang Mastries	T	0 12 ,,	2 10	0 13 ,,	2 11	
76	Out door Fitters	T	0 8 ,,	4 8	0 9 ,,	4 8	
77	Rope, Splicers Assts.	T	0 8 ,,	0 12	0 9 ,,	0 13	
78	Motor Lorry Drivers	T	0 12 ,,	1 0	0 13 ,,	1 1	
79	Battery-changing attendants	T	0 8 ,,	0 12	0 9 ,,	0 13	
80	M. Drivers, Winding Engine	T	0 9 ,,	2 0	0 10 ,,	3 0	
81	Brakesmen	T	0 7 ,,	0 9	0 8 ,,	0 10	
82	Oilers & cleaners	T	0 6 ,,	0 8	0 7 ,,	0 8	
83	Electric Lightining Attendants	T	0 12 ,,	1 0	0 13 ,,	1 1	
84	Mortar Mill Attendants	T	0 9 ,,	0 12	0 10 ,,	0 13	
85	Compressor Attendants	T	0 10 ,,	0 13	0 11 ,,	1 3	
86	Elec. Pump Attendants	T	0 8 ,,	0 12	0 9 ,,	0 13	
87	Motor Attendants than those specified ..	T	0 8 ,,	0 12	0 9 ,,	0 13	
88	Crane Operators	T	0 9 ,,	0 12	0 10 ,,	0 13	
89	Masons	T	0 10 ,,	1 8	0 11 ,,	1 9	
90	Masons Assistants	T	0 7 ,,	0 9	0 8 ,,	0 10	
91	Boiler Head Firemen	T	0 9 ,,	0 13	0 10 ,,	0 14	
92	Boiler Firemen	T	0 7 ,,	0 9	0 8 ,,	0 10	
93	Collie Labour	T	0 7 ,,	0 8	0 8 ,,	0 9	
94	Boys other than apprentices	T	0 3 ,,	0 6	0 3½ ,,	0 6½	
95	Women	T	..	..	0 4 ,,	0 5½	
	EMPLOYED UNDERGROUND.						
96	Fitter Mestries	T	0 12 ,,	4 8	0 13 ,,	4 8	
97	Fitters' Assistants	T	0 9 ,,	0 11	0 10 ,,	0 12	
98	Fitting Gang Coolies	T	0 8 ,,	0 9	0 9 ,,	0 10	
99	Drivers, Winders & Hoists	T	0 9 ,,	2 0	0 10 ,,	3 0	
100	Brakesmen (without drivers certificates) ..	T	0 8 ,,	0 10	0 9 ,,	0 11	
101	Oilers & Cleaners	T	0 6 ,,	0 8	0 7 ,,	0 10	
102	Electric Pump Attendants	T	0 8 ,,	0 12	0 9 ,,	0 13	
103	Donkey Pump Attendants	T	0 8 ,,	0 10	0 9 ,,	0 11	
104	Electric Fan Attendants	T	0 8 ,,	0 12	0 9 ,,	0 13	
105	Battery Changing Attendants	T	0 8 ,,	0 12	0 9 ,,	0 13	
	SANITARY DEPARTMENT.						
106	Road Mestries	T	1 0 ,,	1 8	1 1 ,,	1 9	
107	Line Mestries	T	0 13 ,,	1 0	0 14 ,,	1 1	
108	Sweeper Men	T	0 5½	0 8	0 6 ,,	0 9	
109	Sweeper women	T	0 3½	0 5	0 4 ,,	0 5½	
110	Sweepers Boys	T	0 2½	0 3	0 3 ,,	0 3½	

NOTES :—The above rates are exclusive of the Monthly Attendance Bonus which ranges in value from Rs. 2 to Rs. 4-8-0 per month, and also Dearness allowance from Rs. 8 to Rs. 9.

APPENDIX II-A

Frequency table showing the average daily basic wages *in selected Occupations in the Gold Mining Industry—Mysore State (4 mines only).*

Income Group.	Underground.				Engineering.				Surface.		Totals		
	Company.		Contract.		Underground.		Surface.		Company.				
	Total Number of samples.	No. of workers in the Selected occupations.	Total Number of samples.	No. of Workers in the Selected occupations.	Total Number of samples.	No. of Workers in the Selected occupations.	Total Number of samples.	No. of workers in the Selected occupations.	Total Number of samples.	No. of Workers in the Selected occupations.	Total Number of samples.	% to the total	
Under As. 0-4-0	..		..		..		..		19		19	·42	
As. 4 & below 6	..		..		..		31		127		158	3·5	
As. 6 & below 8	8		..		..		58		148		214	4·8	
As. 8 & below 10	684		319		74		117		192		1,386	31·0	50·6
As. 10 & below 12	528		112		83		79		69		871	19·6	
As. 12 & below 14	260		70		108		71		31		540	12·1	
As. 14 & below Re. 1	107		190		49		49		31		426	9·6	
Re. 1 & below Rs. 1-2-0	159		89		2		39		13		302	6·8	
Rs. 1-2-0 & below Rs. 1-4-0	50		34		..		33		35		152	3·4	
Rs. 1-4-0 & below Rs. 1-6-0	74		30		10		28		..		142	3·1	
Rs. 1-6 & below Rs. 1-8-0	20		19		13		48		7		107	2·4	
Rs. 1-8-0 & below Rs. 1-10-0	..		5		10		22		..		37	·8	
Rs. 1-10-0 & below Rs. 1-12-0	7		10		17		4		1		39	·8	
Rs. 1-12-0 & beowl Rs. 1-14-0	..		..		15		4		1		20	·5	
Rs. 1-14-0 & below Rs. 2	..		..		1		9		..		10	·2	
Rs. 2 & below Rs. 2-2-0	..		..		..		7		..		7	·1	
Rs. 2-2-0 & below Rs. 2-4-0	..		1		..		..		..		1	·02	
Rs. 2-4-0 & below Rs. 2-6-0	..		..		..		16		..		16	·3	
Rs. 2-6-0 & below Rs. 2-8-0	..		..		..		..		..		..	..	
Rs. 2-8-0 and above	..		..		..		..		2		2	·04	
Total ..	1,897		879		382		615		676		4,449	100	

The figures in this table are provisional.

APPENDIX II-B

Frequency Table showing the average daily net earnings *in selected Occupations in the Gold Mining Industry—Mysore State (4 mines only).*

Income Group.	Underground.				Engineering.				Surface.		Total.	
	Company.		Contract.		Underground.		Surface.		Company.			
	Total Number of samples.	No. of Workers in the Selected occupations.	Total Number of samples.	No. of Workers in the Selected occupations.	Total Number of samples.	No. of Workers in the Selected occupations.	Total Number of samples.	No. of Workers in the Selected occupations.	Total Number of samples.	No. of Workers in the Selected occupations.	Total Number of samples.	% to the total.
Under As. 4	..		..		..		..		..		..	
As. 4 & below 6	..		..		..		..		..		..	
As. 6 & below 8	..		..		..		..		..		..	
As. 8 & below 10	..		..		..		..		26		26	·58
As. 10 & below 12	..		..		..		31		132		163	3·66
As. 12 & below 14	8		..		..		18		153		179	4·02
Rs. 14 & below Re. 1	34		9		14		99		150		306	6·88
Re. 1 & below Rs. 1-2-0	700		274		70		52		71		1,167	26·23 } 47·09
Rs. 1-2-0 & below Rs. 1-4-0	518		158		131		75		46		928	20·86 }
Rs. 1-4-0 & below Rs. 1-6-0	222		62		71		60		37		452	10·16
Rs. 1-6-0 & below Rs. 1-8-0	184		178		..		71		8		441	9·91
Rs. 1-8-0 & below Rs. 1-10-0	100		111		30		15		22		278	6·25
Rs. 1-10-0 & below Rs. 1-12-0	39		22		..		67		10		138	3·10
Rs. 1-12-0 & below Rs. 1-14-0	65		30		10		22		17		144	3·24
Rs. 1-14-0 & below Rs. 2	10		19		..		3		..		32	·72
Rs. 2 & below Rs. 2-2-0	10		5		23		37		..		75	1·69
Rs. 2-2-0 & below Rs. 2-4-0	7		..		7		4		2		20	·45
Rs. 2-4-0 & below Rs. 2-6-0	..		10		25		6		..		41	·92
Rs. 2-6-0 & below Rs. 2-8-0	..		..		..		19		..		19	·43
Rs. 2-8-0 and above	..		1		1		36		2		40	·90
Total ..	1,897		879		382		615		676		4,449	100

The figures in this table are provisional.

APPENDIX III.

Attendance Bonus.

The Attendance Bonus which is calculated on monthly basis, is usually paid to those who are otherwise qualified in two periods. The qualifying number of shifts to be worked for earning this bonus is as follows :—

Month of 27 working days	.. ..	25 shifts	.. This is common to all daily-rated employees working underground and surface.
„ 26 „	.. ..	24 „	..
„ 24 „	.. ..	22 „	..

Double shifts or part shifts are not allowed to count for bonus qualification except in cases of Essential Services under express sanction by the Heads of the Departments.

Rates.

A. *Underground.*

Indian employees of all grades . .. .. Rs. 4-8-0 p.m.

B. *Surface.*

Wages upto and including	Annas 6½ per day ..	..	..	..	2	0	0
Do.	„ 11½ „ ..	..	..	..	3	0	0
Do.	„ Re. 1 „ ..	..	..	..	3	8	0
Do.	Rupees Two „ ..	..	..	..	4	0	0
Do.	Rupees Three „ ..	..	..	..	4	8	0

Should workmen actually work on a Sunday, such day's work will count as an ordinary day in the number of days qualifying for the payment of Attendance Bonus.

Medically certified accidents and Attendance Bonus.—Where workmen, due to medically certified (certified by the Doctors of the Companies' Hospital) accidents of a temporary nature arising out of and in the course of their employment are prevented from working the required number of days as would entitle them for the Attendance Bonus for the period concerned, absence not exceeding three days due to the reasons mentioned will not disentitle workmen who work regularly on all the remaining working days from being paid attendance bonus.

Annual privilege leave and Attendance Bonus.—Workmen who go on Annual privilege leave are paid partial attendance Bonus proportionate to the days worked, provided they work all the remaining available days in the period or periods affected.

Inoculation for cholera and plague and attendance Bonus.—Where workmen are inoculated against plague or cholera, they will be permitted two days' leave on full pay and such days also count for Attendance Bonus.

APPENDIX IV.

AGREEMENT UNDER THE MYSORE LABOUR ACT, 1942.

In the Matter of Payment of Dearness Allowance.

Parties.

1. The Mysore Gold Mining Co., Ltd.	The Mysore Mines Labour Association.
2. Nandydroog Mines, Ltd.	Nandydroog Mines Labour Association.
3. The Champion Reef Mines of India, Ltd.	The Champion Reef Mines Labour Association.
4. The Oorgaum Gold Mining Co. of India, Ltd.	The Oorgaum Mines Labour Association.

In regard to the question of payment of Dearness Allowance which is in dispute between us, we have come to a settlement as hereunder :—

1. Every employee now in service earning up to and including Rs. 3 per day or a monthly-rated pay of Rs. 80 or less whose name was on the Pay Roll of the Company on 1st May 1943 and whose name has been continuously on the roll from that date will, subject to conditions prescribed in para 4 hereunder, be granted the sum of Rs. 6 as a consolidated Dearness Allowance additional to such amounts as may have been paid for the months of May to August.

2. Employees who joined the service of the Company subsequent to the 1st May 1943 but otherwise with the above qualifications will be paid a proportion of the above sum.

3. As from the 1st September, Dearness Allowance will be paid as follows :—

Class of employees.	Rate of Allowance per mensem Rs. A. P.
1. Those drawing a basic wage the equivalent of which is Rs. 40 and below per mensem	8 0 0
2. Those drawing a basic wage the equivalent of which is in excess of Rs. 40 but does not exceed Rs. 80 per mensem	9 0 0

4. The payment of the Dearness Allowance will be subject to the following further conditions :—

(a) Every employee whose monthly-rated pay is as stated above shall, to qualify for full dearness allowance, work a minimum of 24 days per month.

Where the attendance falls short of 24 days in any month, a sum proportionate to the number of days worked will be paid.

(b) Absence from work not exceeding in all three months per annum for reasons certified by the Company's Medical Officer and privilege leave will count as attendance when calculating the amount of dearness allowance payable.

(c) Dearness allowance will be calculated to the nearest anna.

(d) In all cases of doubt as to the amount of dearness allowance payable in individual cases, the decision of the Superintendent, after due examination at which all parties concerned may be represented, shall be final.

Dated this twentythird day of September 1943, at Oorgaum, Kolar Gold Field.

Monthly-rated Employees whose pay is		D.A.
From and including	and less than.	per month.
Rs.	Rs.	Rs.
81	84	10
84	87	11
87	90	12
90	120	13
120	140	14
140	160	15
160	180	16
180	190	17
190	200	18
200	240	19
240	260	20
260	280	21
280	300	22
300 and above	..	23

APPENDIX V.

Cost of Living Index Numbers for the Kolar Gold Field area (Mysore State) for the year 1944 *and for January, February and March* 1945.

Base 1935-36 (*July to end of June.*)

Month.		Cost of Living Index Number.
January	1944	192·8
February	,,	192·8
March	,,	202·1
April	,,	202·6
May	,,	202·1
June	,,	203·4
July	,,	204·9
August	,,	204·4
September	,,	205·4
October	,,	202·2
November	,,	193·7
December	,,	200·0
January	1945	210·3
February	,,	213·2
March	,,	212·0

APPENDIX VI.

Housing Orders.

(*Appendix* 3 *of the Standing Orders.*)

1. In so far as it is practicable houses will be allotted to Departments approximately in proportion to the number of persons on Departmental Rolls. Vacant houses so allotted will be posted on the Departmental Notice Board, and applications for same will be received and allotted through the Departmental Time Office concerned.

Only applicants with satisfactory attendance and service records will be considered and when there is more than one applicant, in any exceptional case the Head of the Department may make a direct allotment, otherwise the house will be allotted by raffle from amongst those applicants suitably qualified.

In general, houses are not allotted to bachelors but in certain cases provision is made for the group accommodation of West Coast men, in collaboration with the contractor concerned.

Houses are allotted at the absolute discretion of the Superintendent conditional upon continued satisfactory attendance, good and efficient service, a due regard to the peace and tranquillity of the lines and the rights and liberties of other residents, as well as the strict observance of the Mines Standing Orders and these Housing Orders.

2. *Inter alia* in addition to the foregoing an employee, on taking up residence in a Company house accepts the following orders, breach of any of which may be punished under Mine Standing Order 22 (e) or by eviction from the house or such lesser penalty as may be imposed by the Superintendent or Head of the Department concerned :—

(a) Instructions by the Chief Medical Officer or his staff as regards vaccination, inoculation, sickness, sanitation, and all other matters affecing the general health of the lines will be strictly observed.

(b) Access to houses will be given at any time to any member of the staff of the Sanitary Department for the purposes of inspection or enforcement of these instructions and orders or Mine Standing Orders.

(c) The employee in whose name a house has been allotted will accept responsibility for the observance of these rules by all members of his family and any other persons for the time being residing in the house.

(d) All cases of births, deaths, sickness or rat falls must immediately be reported to the Sanitary Maistry or Overseer concerned.

(e) All persons residing in a house either temporarily or permanently must be reported to the Sanitary Overseer or Maistry concerned.

(f) The person to whom a house has been allotted will be responsible for the cleanliness and sanitary condition of the house and its immediate surroundings. Latrines are provided for sanitary reasons and failure to use them will be regarded as a serious breach of these orders.

(g) Dogs must be licensed and cared for.

(h) In lines where cattle sheds are provided, cattle and goats must be kept in them and will be permitted in the lines only during milking times which hours are published on Notice Boards at the Cattle Sheds. In no case are cattle and goats permitted in the houses or in the vicinity of houses inducing insanitary conditions.

(i) Slaughtering of animals, except under license and with the previous permission of the Sanitary Overseer, is prohibited on the Company's property.

(j) Unauthorised sub-letting or transferring of houses is not permitted.

(k) A person who has been prohibited entry into the lines by the Superintendent will not be harboured by any person occupying Company premises.

(l) The Superintendent's instructions will be observed in all matters concerned with cultivation or non-cultivation of land within the Company's leases.

(m) Wilful damage to or destruction of Company's property, including trees, is an offence under these orders. The cost of such damage or destruction, may be recovered at the discretion of the Superintendent, from the person concerned or from the employee responsible under these orders (see order 2 clause c), in addition to any other penalty which may be imposed under these or Mines Standing Orders.

(n) Gambling on the Company's property is prohibited.

(o) Neither drums nor loud music are permitted on the Company's property after 11 p.m. (new time) and dramas or other public entertainment must terminate not later than 2 a.m. (new time) unless permission to exceed this time has previously been granted by the Superintendent or other authorised person.

(p) Panchayat courts are appointed by the Superintendent for the convenience of line residents in settling local disputes and maintaining peace and tranquillity in the lines. Judgments by these Courts on endorsement by the Superintendent shall be complied with.

(q) A house will be vacated by the occupants when the employment of a person in whose name it has been allotted is terminated, or under orders of the Superintendent at any time, subject to due notice being given, if practicable.

(r) The amount of rental payable for different classes of houses will be fixed by the Superintendent from time to time and such will be deducted from the wages or salary of the employee or employees to whom a house has been allotted.

(s) The authority of the Superintendent in all matters arising out of or connected with the housing of the employees, on Company property, shall be final.

3. Maternity homes are provided for the use of the line residents and in their own interests full use of these facilities is advised.

APPENDIX VII.

Details of Major strikes between 1930 *and* 1940.

Period.	Cause.	Mines involved.	Result.
3rd to 28th April 1936.	Coolies' unwillingness to register their naes and give thumb impression and revision of wage rates.	All the four mines.	Labour Registry Office was abolished. Sick pay and Service Gratuity scales were revised. Huts rent also revised. Companies agreed to make payments to contractors' coolies and welfare schemes were introduced in 1931.
16th July to 12th August 1946.	Minimum wage and attendance bonus stated to be insufficient. Demands for payment of war allowance and introduction of Provident Fund Scheme. Revised Service Gratuity Table misunderstood.	Do.	Wages were increased by one anna. Service Gratuity Table clarified.

APPENDIX VIII.

GOVERNMENT OF HIS HIGHNESS THE MAHARAJA OF MYSORE.

GENERAL AND REVENUE DEPARTMENTS.

G. O. No. D. 6583-6-I & C. 85-40-34, dated 17th April 1942.

Report of Rajamantrapravina Diwan Bahadur K. Matthan.

Passed orders on the—regarding the conditions of labour employed on the Kolar Gold Field.

Read—

Government Order No. D. 1237-42-I & C. 85-40-3 dated the 6th September 1940, appointing Rajamantrapravina Diwan Bahadur K. Matthan to enquire into the conditions of labour employed on the Kolar Gold Field.

2. Letter, dated the 23rd May 1941. from Rajamantrapravina Diwan Bahadur K. Matthan, submitting his Report in the matter.

3. Correspondence ending with letter dated the 5th December 1941, from the Secretary, Messrs. John Taylor & Sons' Committee, expressing the views of the Committee on the Report and furnishing information on the action taken or proposed to be taken by them on the recommendations made in the Report.

4. Correspondence ending with letter dated the 23rd December 1941, from the Chief Inspector of Mines in Mysore, forwarding a copy of the Notice, dated the 22nd Dec. 1941, issued by the Mining Companies, notifying the grant of certain concessions to their employees in respect of privilege leave with pay and attendance bonus, with effect from the 1st January 1942.

Order No.|D. 6583-6-I & C. 85-40-34, dated Bangalore, the 17th April 1942.

In their order of the 6th September 1940, read above the Government requested Rajamantrapravina Diwan Bahadur K. Matthan to review the progress and, in the light of the existing conditions, the adequacy of the various measures of labour welfare adopted by the Mining companies since 1931, and to examine the specific representations made by the workers during the labour strike in July—August 1940. Mr. Matthan was also requested to examine to what extent the several measures of labour legislation in force in the State had benefited the labour population on the Kolar Gold Field and to favour the Government with any suggestions calculated to promote the object of such legislative enactments.

Mr. Matthan made a detailed enquiry into the several problems affecting labour employed on the Field, such as the terms and conditions of employment, the level of wages, the system of contract labour, the recognition of labour unions, the necessity for enacting further labour legislation, the provision of housing

accommodation medical relief and other amenities, etc., and sent his recommendations with his report. The summary of the recommendations made by him is printed as an appendix to this order with an indication of action taken or proposed to be taken.

Several of the recommendations deal with matters within the purview of the Mining Companies while others relate to legislation and public administration and require action by Government.

Messrs. John Taylor and Sons' Committee, representing the Mining Companies on the Field, to whom the recommendations were referred have examined them and furnished information about the action taken by the Companies on some of the recommendations and the manner in which they intend to deal with those recommendations on which they have not yet taken action.

The recommendations directly concerning the Mining Companies fall under three classes :—

A. Recommendation in respect of which action has been taken.

B. Recommendations which are under further consideration ; and

C. Recommendations on which the Mining Companies find themselves unable to take action.

A. Recommendations on which action has been taken.—(i) *Attendance Bouns.*—The monthly rates of attendance bonus scale have been increased by Rupee one, as from 1st August 1941, at an additional annual cost of Rs. 2.5 lakhs. The Mining Companies point out that, with this increase, the average daily earnings of a regular underground employee approximates to Rupee one. With effect from 1st January 1942 in all cases in which the workmen are prevented from working the number of days ordinarily required to entitle them to attendance bonus for the period concerned, due to medically certified accidents of a temporary nature arising out of and in the course of their employment, such absence does not disentitle the workmen to payment of bonus proportionate to the number of days actually worked, provided (a) that the absence does not exceed three days and (b) that the workmen in question work regularly on all the remaining available days. Attendance bonus is paid fortnightly for 11, 12, or 13 days' attendance, the number of days required to be worked during a period being governed by the number of working days in a month.

(ii) *Underground Outfit Allowance.*—The Mining Companies have sanctioned, with retrospective effect from the 1st March 41, a scheme for the grant of a cash allowance of Rs. 3 at the end of every six months of regular service, in the case of all employees working underground who provide themselves with the standard equipment, at an estimated annual cost of Rs. 1 lakh.

(iii) *Leave with Pay.*—The Mining Companies have sanctioned from the 1st January 1942, a scheme for the grant of Holidays with pay, to employees who have put in two years' continuous service, subject to certain terms and conditions. This is estimated to cost Rs. 2 lakhs a year. Under this Scheme, an employee will, if qualified, and on the Management being satisfied of his good conduct and regular attendance be allowed an annual leave with pay. Such leave shall be given when it is convenient to the Management and is not detrimental to the operation of the Department in which the employee is engaged. The leave period is based on the number of days worked during the previous twelve calendar months and is subject to reduction corresponding with the number of days of sick leave with pay, etc., taken during the same period. The eligibility for leave is regulated as below :—

Underground (contract)	*Maximum.*
Employees who during the year work for 260 days.	21 days' leave.

Underground (campany).	*Maximum.*
Employees who during the year work 280 days.	21 days' leave.
Surface.	
Employees who during the year work 280 days.	14 days' leave.

The grant of leave is subject to the following conditions :—

(1) All leave is granted at the convenience of the Management and the Management is free in its discretion to refuse, revoke or curtail the leave subject to exigencies of work.

(2) By pay is to be understood an employee's substantive rate of pay per mensem or per diem, exclusive of all allowances, bonus or overtime.

(3) If the Management offers the leave at its convenience and the employee rejects such offer, he shall forfeit leave to the extent offered.

(4) Annual leave is not cumulative.

(5) Workmen who overstay their leave will render themselves liable to loss of appointment. ..

(iv) *Leave without pay.*—Employees who have put in approved service are, on application, granted leave without pay to attend to their private affairs at the discretion of the Superintendent of the Mining Company concerned.

(v) *Gratuity.*—The Mining Companies have introduced with effect from the 1st August 1941, a system of paying service gratuity to all eligible workmen who leave the Companies' service as a result of permanent disability compensated under the Workmen's Compensation Act. This is estimated to cost Rs. 1.5 lakhs per annum.

(vi) *Grant of copy of Medical Certificate.*—When workmen are discharged on account of physical unfitness, a copy of the medical certificate is furnished on application.

(vii) *Construction of Huts.*—The Mining Companies have taken in hand, as an emergent measure, the construction of an additional 1,500 concrete huts at an approximate cost of Rs. 3.5 lakhs, with a view to completion within a period of two years. The work is in progress. In this connection Messrs. John Taylor and Sons' Committee point out that with this additional construction, the total number of huts will exceed 13,000 built at an approximate total cost of Rs. 25 lakhs and the annual maintenance, sanitation and water charges will amount to Rs. 5.25 lakhs. In these circumstances and in view of the uncertain future of the Mining industry and of the rise in the costs of working, the Committee urge that the Mining Companies cannot commit themselves at present to schemes of housing construction beyond the present programme which is under execution.

(viii) *Provision of lights and other conveniences.*—As regards the suggestion about providing more electric lights, water traps, bathing places latrines and other amenities in the Cooly Lines, the Mining Companies state that everything possible has been and will continue to be done and point out that welfare work on a considerable scale has been in progress on all the Mines of the Field for many years now, with satisfactory results.

B. Recommendation under Consideration.—Among the recommendations of Mr. Matthan, is one relating to the necessity of the rules regarding service gratuity being more liberal. He has recommended that a workman leaving the service after a certain number of years should be entitled to receive service gratuity irrespective of his leaving it on account of unfitness or otherwise, that service gratuity should be calculated at half a month's wage for every year of service, that the qualifying period should be reduced in the

case of the underground workmen from ten to five years, that the wage for calculation of service gratuity should be inclusive of the attendance bonus and that if a workman dies, his dependants should be eligible to receive the service gratuity. The Mining Companies state that these points are still under their consideration, in view of the heavy financial commitments involved.

Religious Holidays.—In regard to the grant of three days' leave in a year with pay uniformly to workmen of all communities, for religious observances, feasts and festivals, the Mining Companies agree with the principle but state that, if it is adopted in the manner proposed, it would in effect necessitate the complete stoppage or curtailment of mining operations from six to nine additional days during a year. They have not yet been able to evolve a practicable scheme for adoption. They have given the assurance that the existing arrangements will be continued and improved, if possible.

C. Other Recommendations.—The Mining Companies are not in favour of the suggestion for a general increase in wages in view of the fact that a general increase was given so recently as August 1940, at an additional annual cost of Rs. 6 lakhs and that the rates of attendance bonus scale have been since raised by one rupee, from 1st August 1940. They are also not in favour of giving periodical increment of wages without regard to merit and efficiency and point out that while increases are not given automatically, they are given freely in all deserving cases in accordance with sanctioned scales.

Regarding the suggestion to merge the attendance bonus in the regular wages and to encourage regular attendance in other ways, the Mining Companies state that the suggestion is not acceptable to them, as in their opinion, the existing arrangement is equitable and offers the greatest inducement to men to work regularly and the attendance bonus if merged in the wage rates as proposed, would result in irregularity of work, to the detriment of workmen as well as of the Mining Companies.

Mr. Matthan has suggested that a Provident Fund Scheme on a contributory basis is preferable to the present scheme of Service Gratuity. The Mining Companies state that the institution of the fund cannot be contemplated at this late stage in the life of the Mines and that, apart from financial and other considerations, the working of such a scheme involves almost insuperable difficulties by reason of absenteeism, irregular attendance, the constant movement of workmen from one mine to another and of the impossibility of correctly assessing the gratuity amount to be credited to the Workmen's Provident Fund Account for past service, in the absence of full and complete service records of each workman. While the Government do not wish to under-rate the difficulties urged by the Mining Companies, they would observe that the alternative of liberalising the existing rules regarding service gratuity requires early consideration and decision.

In regard to the gradual replacement of the present system of contract labour for underground work by a system of co-operative work, the Mining Companies bring to the notice of Government that efforts were made in that direction in the past, and that they failed generally to achieve satisfactory results. The state that it is as a result of their knowledge of work requirements and practical experience of its efficiency that they consider it essential to retain the existing contract system and point out that in any event, decisions regarding methods of work must rest with the Management.

Regarding the recommendation that sick pay may be given when it is more than the allowance admissible under the Workmen's Compensation Act, in cases of temporary disablement due to accidents, the Mining Companies point out the Workmen's Compensation Act and the Sick Pay Scheme of the Companies are entirely unrelated, and that there is no reason to link them up in the manner proposed.

Another recommendation refers to the establishment of dispensaries for women and children at convenient centres in the cooly lines. The Mining Companies state in this connection that, in addition to maintaining maternity clinics, they contribute annually a sum of Rs. 6,000 to the funds of the Kolar Gold Field Sanitary Board towards the cost of the Government Maternity Hospital and the Epidemic Diseases Hospital, Robertsonpet and the General Dispensary at Champion Reef and that the question of establishing other dispensaries in the mining area is a matter for consideration by the Government. Government direct that the questions whether the existing medical facilities in the mining area are adequate in the case of women and children of the workmen and if they require to be improved, in what manner the improvement can be effected, be separately examined by the Senior Surgeon in Mysore in consultation with the Kolar Gold Field Sanitary Board and the Mining Companies and a report submitted for the Orders of the Government.

Recommendations for Action by Government.—The recommendations relating to legislation and public administration will now be dealt with :—

Mr. Matthan has recommended recognition to Labour Associations and urged the need for legislation in that behalf and for the settlement of industrial disputes. Mr. Matthan has also recommended that a Labour Commissioner should be appointed for the Kolar Gold Field to guide the movement.

The Mysore Labour (Emergency) Act, XX of 1941, came into force in August 1941. This has been since placed permanently on the Statute Book by the Mysore Labour Act, 1942 (Act XIII of 1942). The Director of Industrial Planning and Ex-Officio Chief Inspector of Factories has been appointed the Commissioner of Labour for the State with a full-time Assistant Commissioner of Labour, stationed on the Kolar Gold Field.

The recommendations about the Mysore Mines Act are under examination.

An amendment of the Workmen's Compensation Act has also been recommended so as to enable a workman sustaining injury from an accident, to receive compensation from the date of the accident, instead of after a " waiting period " of seven days. This recommendation has also been pressed by the Labour Welfare Board.

Proposals in this behalf will be placed before the Representative Assembly at its next session.

The revision of the arrangements relating to silicosis is under the consideration of the Government.

It has been suggested that the Commissioner of Labour to be appointed should assist workmen in cases under the Workmen's Compenation Act where necessary. Suitable instructions have been issued to the Commissioner of Labour in this matter by the Government.

In regard to the extension of the Mysore Maternity Benefit Act, 1937, proposals will be placed before the Representative Assembly at its next session.

Section 3 of Act XIII of 1938 amending the Code of Civil Procedure about the attachment of wages of labourers by Civil Courts has been repealed by the Amending Act IV of 1940.

Mr. Matthan brings to the notice of the Government that the labourers on the Field do not appear to be generally aware of the several salutary provisions of the Money Lenders Act (XIII of 1939) and suggests the desirability of giving wide publicity to them among the labour population. The Act has

been given such publicity. Government hope that the Labour Associations which have been since formed in each of the Mines, will take action to make the labourers acquainted with the benefits accruing under the Act.

The above review indicates the progress that has been achieved and the details of other measures in progress or under examination. Government desire to record their appreciation of the active steps taken by the Mining Companies in respect of several of the recommendations. They hope that the Companies will come to prompt decisions in regard to the matters still under examination. Government also hope that the machinery created by the Labour Act will make for an increasing measure of cordiality, good will and mutual discussion between the employers and employees and secure amicable settlement of points of difference that may arise from time to time.

In conclusion, Government desire to place on record their high appreciation of the labours of Rajamantrapravina Diwan Bahadur K. Matthan and to convey their thanks to him for the very valuable recommendations he has made in regard to the improvement of conditions of labour on the Kolar Gold Field.

V. VEDAVYASACHARYA,
Secretary to Government.
Development Department.

APPENDIX.

Recommendations.	*Action taken or proposed to be taken.*
1. The minimum daily wage of an underground labourer should be annas twelve, of a surface labourer nine annas and of an underground skilled workman Rupee one.	The monthly attendance bonus has been increased. The companies are not in favour of a general increase in wages and point out that with the recent increase in attendance bonus the average daily earnings of an underground employee approximates to one rupee.
2. Periodical increments of wages according to sanctioned scales should be granted.	The companies state that periodical increments are given freely in all deserving cases.
3. Attendance bonus should not be forfeited if the workman is prevented by accident or illness from putting in the minimum attendance laid down for earning the bonus. It is preferable to merge the attendance bonus in the regular attendance in other ways.	The rules have been liberalised in this respect from the 1st January 1942. The suggestion is not acceptable to the mining companies.
4. Outfit for underground work should be given free of cost.	The companies have sanctioned a scheme for the grant of a cash allowance of Rs. 3 per half-year towards standard equipment of underground employees from 1st March 1941.
5. Annual leave. Underground employees should be given three weeks annual leave with pay and surface workers two weeks' annual leave with pay. This may be limited to employees who have put in continuous service for two years. Sick leave taken during the year may be deducted from the period of annual holidays.	The companies have sanctioned a scheme in this respect from 1st January 1942.
6. Holidays for religious observances feasts and festivals. Three days' leave in a year with pay should be given uniformly.	The companies agree with the principle underlying this recommendation. They state that they have not yet been able to evolve a practicable scheme for adoption and that the existing arrangements would be continued and improved if possible.
7. Employees who have put in regular service for some years should be eligible to get leave without pay up to two months for attending to their private affairs.	Leave is being granted in such cases at the discretion of the Superintendent of the Company concerned.
8. A few more electric lights, water taps, bathing places and latrines should be provided in the cooly lines.	The companies state that everything possible has been done and will continue to be done and that welfare work on a considerable scale has been in progress on the Field for several years.
9. Seven thousand additional huts should be provided. The thatti walls of the existing huts should be replaced by masonry or concrete walls.	The companies have taken in hand the construction of an additional 1,500 concrete huts to be complete within a period of two years. They urge for reasons stated that they cannot commit themselves to undertake construction beyond the present sanctioned programme.

Recommendations.	*Action taken or proposed to be taken.*
10. Payment of compensation under the workmen's compensation Act should not disentitle a workman to the service gratuity he has earned.	The companies have sanctioned a scheme in this respect from the 1st August 1941.
11. A workman leaving the service after certain number of years should be entitled to receive the service gratuity irrespective of his leaving on account of unfitness or otherwise.	The companies state that these points are still under consideration. The Government hope that existing rules will be liberalised on the lines indicated and that the companies will take an early decision in the matter.
12. Service Gratuity should be calculated at half a month's wage for every year of service, and the period entitling an underground workman for service gratuity should be reduced from 10 to 5 years. The wage for calculation of service gratuity should be inclusive of the attendance bonus.	
13. If a workman dies, his dependents should be eligible for service gratuity.	
14. A provident fund scheme on a contributory basis is preferable to the present scheme of service gratuity.	The companies disagree with the suggestion in view of the practical difficulties involved in its working.
15. The present system of contract labour for underground work should be gradually replaced by the system of such work being done on a co-operative benefit basis.	The companies state that efforts made in this direction in the past failed to achieve satisfactory results and that they are not in favour of changing the present system.
16. Labour associations should be allowed and be given recognition.	The Mysore Labour Act, has now been placed permanently on the Statute Book. The Director of Industrial Planning and Chief Inspector of Factories has been appointed the Commissioner of Labour in Mysore and an Assistant Commissioner of Labour has been stationed on the Field.
17. Trade Unions and Trade Disputes legislation should be enacted.	
18. The Trade Union movement should be guided and not suppressed.	
19. A Labour Commissioner should be appointed for the Kolar Gold Field to guide the Trade Union movement.	
20. The Mysore Mines Act should be amended to provide for—	
(1) ensuring the health and convenience of the workers as well as their safety,	
(2) fixing the maximum hours of work and giving extra wages for overtime,	
(3) granting a compulsory weekly holiday for rest ;	The recommendations about the Mysore Mines Act are under examination.
(4) prohibiting employment of women and children underground and regulating their employment on surface.	
21. Section 17 of the Mysore Mines Act should be repealed, or, if it is retained, adequate safeguards should be provided.	

Recommendations.	*Action taken or proposed to be taken.*
22. The Workmen's Compensation Act should be amended so as to enable a workman sustaining injury from the accident to receive compensation from the date of accident instead of after a "waiting period" of seven days.	Proposals in this behalf will be placed before the Representative Assembly at its next Session.
23. Sick pay should be given when it is more than the allowance admissible under the Workmen's Compensation Act.	The companies point out that their sick pay scheme is entirely unrelated to the scheme of compensation under the Workmen's Compensation Act. The Government have issued suitable instructions to the Commissioner of Labour in this matter.
24. The Labour Commissioner should assist workmen in regard to cases under Workmen's Compensation Act.	
25. When a workman is discharged on account of physical unfitness, a copy of the medical report should be furnished to him.	The companies state that copies of such reports are furnished on application.
26. The question of enacting separate legislation for dealing with cases of silicosis or miner's phthisis should be examined.	This is under the consideration of Government.
27. The Mysore Maternity Benefit Act should be made applicable to the women employed by the Mining Companies.	Proposals will be placed before the Representative Assembly at its next session.
28. Section 3 of Act XIII of 1938 amending the Code of Civil Procedure should be repealed.	This has been repealed by Amending Act IV of 1940.
29. The provisions of the Mysore Money Lenders Act should be given wide publicity among the labour population.	This has been done.
30. A welfare officer should be a man with a missionary fervour who can enter into the problems of Indian life, environment and sentiments and he should be a man able to speak the local language.	The companies point out that there is a welfare officer on the Field who has been dealing with these problems for several years now.
31. A few dispensaries for women and children should be established at convenient centres in the cooly lines, with a few qualified Indian lady doctors.	The question will be further examined by the Senior Surgeon in Mysore in consultation with the Kolar Gold Field Sanitary Board and the Mining Companies.

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LABOUR INVESTIGATION COMMITTEE

GOVERNMENT OF INDIA

REPORT

ON

LABOUR CONDITIONS IN THE IRON ORE INDUSTRY

BY

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CONTENTS.

	Page.
PREFACE	(ii)
ACKNOWLEDGMENTS	(v)
Chapter I.—INTRODUCTION	1
Economic Background	1
Temporary Slump in Iron Mining	2
Chapter II.—SURVEY OF LABOUR CONDITIONS	3
Employment.—Length of Service. Service Rules. The Contract System. Labour Turnover. Absenteeism. Miscellaneous	3
Wages and Earnings.—Cutters: The Box System—The Tub Rate—Cubic Foot Rate—The Tonnage Rate. Loaders. Drillers. Dearness Allowances and Bonuses. Overtime. Agency of Payment. Miscellaneous	11
Working Conditions.—Shifts and Hours of Work	15
Housing	15
Migration	18
Indebtedness	18
Age Statistics	18
Welfare Activities	19
Working of the Various Acts.—Mines Act. Workmen's Compensation Act. Maternity Benefit Act	20
Chapter III.—SUMMARY AND CONCLUSIONS	21
APPENDIX I.—Scales of Pay at the TISCO Mines	24
II.—Hours of work at the TISCO Mines	26
III.—Main Types of Houses constructed by the TISCO	27

PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the labour Investigation Committee was appointed by the Government of India by Resolution No. L.4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Reprt, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each : The following industries were selected for the purpose :—

A. *Mining*. (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations*. (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry*. (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making. (29) Mica Splitting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport*. (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour*. (35) Port Labour. (36) Municipal Labour. (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature, no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed, and (b) supplementary and special questionnaires in respect of certain industries, such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, micca, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton, woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst Employers' and Workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North-West Frontier Province where none of the Industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint a Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) that the Committee, as a whole, to study each industry, (ii) that the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) that each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port Authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

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Acknowledgment is due to my Investigator, Mr. L. J. Pathak, who conducted the *Ad Hoc* survey in Bihar and adjoining States.

Chapter I.—Introduction.

Economic Background.

Bihar, the home of the Mineral industries of India, is also the home of the iron ore mining industry, which is the backbone of the Indian iron and steel industry. Outside Bihar proper, there are mines in the Mayurbhanj and Keonjhar States, and in the Mysore State in the South.* All the iron ore mines in Bihar are situated side by side in the Singhbhum District of Bihar and in the Mayurbhanj and Keonjhar States. The mine at Gua, which is owned by the Indian Iron and Steel Co., Ltd., Burnpur, is at a distance of 91 miles from Jamshedpur. Not far from Gua is the mine at Noamundi on the B. N. Railway, which is the biggest iron ore mine in the whole of Asia. This is owned by the Tata Iron and Steel Co., Ltd., (TISCO) Jamshedpur. Between Gua and Noamundi lies the Bara Jamda Station, near which are situated the Barabil Iron Mines, which fall in the jurisdiction of the Keonjhar State and which are owned by Messrs. Bird & Co. of Calcutta. Both iron ore and manganese ore are worked here. These three places, *viz.*, Noamundi, Bara Jamda and Gua are three consecutive stations on the branch line of the B. N. Railway, which runs between Rajkhersawan and Gua. The Mayurbhanj State iron mines are nearer to Jamshedpur than the Singhbhum mines are. These State mines are within a radius of 45 miles from Jamshedpur. The biggest iron mine in this range is the mine at Gorumahisani. It was this mine that the Tatas worked first for the supply of iron ore for their steel works and, in fact, it was because of this mine that the TISCO works were located at Jamshedpur, instead of somewhere in the Central Provinces. The raising of iron ore began as early as 1909 and for the first time ore was despatched to Jamshedpur in 1911. With these supplies from Gorumahisani, work was started at Jamshedpur in the year 1913. Two other iron ore mines in the Keonjhar State are located at Badam Pahar and Sulaipet, and these are also owned by the TISCO. The mine at Sulaipet is the smallest. Gorumahisani and Badampahar are two stations on the Tatanagar-Badampahar Branch of the B. N. Railway, while Sulaipet is some 5 miles away from Kuldiha Station on the same branch.

There are four different types of iron ore in India,—magnetite, laterite, clay ironstone, and hematite. The occurrences of the first three types, however, are not either numerous or prolific, and the most valuable iron ores in India at present are the hematite ores of Singhbhum and Orissa in what is known as the "Iron Belt." Dr. C. S. Fox of the Geological Survey stated† in 1924 that "Both in quality and quantity these ores are thought to exceed any other ores of the same kind, including the Great American occurrences of Minnesota, Wisconsin and Michigan." According to an estimate made

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* In the Mysore State, the mines are located in the Kemmangundi Hills of the Bababudan range within a radius of 25 miles from the Bhadravathi works. The annual output of the works is 24,000 tons of pig-iron, 8,000 tons of cast-iron pipes and 20,000 tons of steel. The Works at present provide employment to about 3,500 men in the plant at Bhadravathi, 500 men in the mines and 6,000 in the forests (for cutting wood for charcoal). The present survey is confined to the Bihar iron ore industry only.

† In a Report included as an annexure to the Tariff Board's *Report on Iron and Steel*, 1924, p. 91.

by another authority*, these hematite ores of the Iron Belt contain not less than 60 per cent. (Fe.), while the total quantity of ore contents of the Belt is about 2,832 million tons,—a quantity which should be sufficient for the requirements of the Indian producers for 1,000 years assuming an output of 1,500,000 tons of pig-iron per annum. The comparative superiority of the Indian hematite ore can be seen from the following table.

TABLE 1.

Iron Contents of Ores in various Countries.

India	55 to 70 per cent.
Britain	30 to 35 ,,
France	40 ,,
Belgium	35 ,,
Germany	40 ,,
U. S. A.	50 to 60 ,,
Sweden	60 to 70 ,,
Spain	50 to 60 ,,
Japan	30 to 50 ,,

Owing to the high iron content of the Indian ore the production cost of pig iron is low. The Tariff Board estimated that the advantage possessed by the Indian industry over its competitors was in the neighbourhood of Rs. 8 per ton of steel. On the other hand, the phosphorus content of the Indian ore being low, the cheaper Continental process, *viz.*, the Basic Bessemer process cannot be used here, and this causes a slight disadvantage on the other side.

The following table gives the average analysis of iron ore at Gorumahisani and Noamundi in recent years. The percentage of iron in iron ores is very high. At Noamundi, the percentage is sometimes as high as 70 per cent., which is the highest in the world ; and the average is usually above 60 per cent.

TABLE 2.

Analysis of Iron Ores at Gorumahisani and Noamundi.

	August 1939		December 1944	
Gorumahisani:				
Ingredients	Soft Ore	Hard Ore	Soft Ore	Hard Ore
Iron	62·53%	..	61·94%	66·76%
Silica	2·25%	..	2·91%	..
Alumina	3·52%	..	3·19%	..
Noamundi:				
Iron	61·83%	68·19%	59·10%	67·35%
Silica	1·81%	0·63%	3·64%	1·18%
Alumina	4·63%	1·21%	6·38%	2·38%

Temporary Slump in Iron Mining.—The work of raising iron ore was not in full swing at the time of the enquiry. In the course of conversations with the Managers, the slump in the industry was attributed to two main causes : In the first place, the demand for iron ore from the TISCO had considerably fallen due to the facts that (a) the Government were not supplying coal which was necessary for melting iron ore and manufacturing steel, (b) that the Government were importing steel from the United States possibly at a cheaper rate, and (c) that they had controlled the sale wholly and the

*Mr. H. C. Jones of the Geological Survey quoted by Dr. Fox, *loc. cit.*

TISCO could not sell its production in the open market. Secondly, it was stated that the supply of labour was not adequate as in previous years, during winter months. During winter months, ordinarily, workers are found available in large numbers owing to the season being an off-season for agriculture. But this year there was scarcity, probably due to the fact that labour had migrated to Assam for work under military contractors for constructing roads, buildings, aerodromes, etc. In the Singhbhum District also military contractors were paying higher wages and attracting labour away from the mines.

Owing to the fall in demand for iron ore and difficulty of obtaining labour, some of the smaller mines have had to close down temporarily. On the other hand, the iron ore mine at Manharpur, formerly owned by the British Iron and Steel Co., but now taken over by Burn and Co., had suspended operations owing to a dispute with the Government over the question of the payment of royalty.

Chapter II.—Survey of Labour Conditions.

The Bihar Labour Enquiry Committee cursorily examined the problem of labour conditions in the iron ore mines at Noamundi and Gua in 1939. In the course of the oral and written evidence, tendered by representatives of employers and workers, certain glaring facts were brought out. In particular, the level of wages paid for unskilled labour by the mine-owners and by contractors and sub-contractors was found to be extremely low. The workers opposed the contract system which had led to grave abuses. That there was some substance in their grievances was borne out by independent evidence also. Mr. J. L. Keenan, the retired General Manager of TISCO (writing in the *Modern Review,* December 1935) stated : " A short time ago, I went on a trip to the Mines. We have saved a lot of money by letting out contracts on the tender system. In fact, the cost of mining ore at one of our Mines has dropped from annas fourteen to annas seven, but I might tell you that I have found out, on enquiry, that the average wages of labour at one of our mines had dropped to three quarters of an anna per day..... I cannot say that the wages that our contractors are paying at the mines is any credit to the Tata Iron and Steel Company, and is high time that we took some drastic action to ensure to the workmen a wage sufficient to keep them with their bodies and souls together." It was brought to the notice of the Committee that miners had to suffer many hardships, of which the main were (a) that miners had to do the drilling or blasting of holes themselves, (b) that women had to work till late at night carrying the ores for despatch, (c) that there was an inadequacy of water supply in the neighbourhood of mines, (d) that as children were prohibited from being taken underground, or brought near the pitheads, they had to be left unattended in the jungles away from the mines, and (e) that the huttings provided by the contractors were highly over-crowded and unhealthy, giving rise to epidemics and diseases. There is no reason to suppose that any of these evils have been substantially mitigated since the Bihar enquiry took place.

Employment.—Figures for total employment and output of iron ore were available from the Chief Inspector of Mines. These figures are for British India only and in British India the only Province producing the ore is Bihar. Figures are reproduced below for two pre-war and two war years, *viz.*, 1938, 1939, 1942 and 1943. This will show the trend of employment. As regards the States, figures are available for the most important mine of Mayurbhanj

State, *viz.*, the Gorumahisani Mine. The production of other mines in the States is not very considerable.

TABLE 3.

Number of Workers and Output of Iron Ore.

(British India only)

	1938. Singhbhum	1939. Singhbhum	1942. Singhbhum & Shahabad	1943. Singhbhum & Shahabad
Total output (Tons)	1,421,090	1,543,934	1,773,114	1,328,909
OPEN WORKINGS—*Employment.*				
Males.				
Foremen and Mates	253	278	216	211
Miners	3,345	3,175	3,295	2,668
Other skilled labour	449	403	407	447
Other unskilled labour	1,257	1,301	911	739
Total males	5,304	5,157	4,829	4,065
Females	2,100	2,053	2,484	2,197
Total males and females	7,404	7,210	7,313	6,262
Total underground and open workings ..	7,404	7,210	7,313	6,262
SURFACE—*Employment.*				
Males.				
Clerical and Supervising staff	252	260	279	312
Skilled labour	405	333	366	418
Unskilled labour	1,028	811	1,509	1,458
Total males	1,685	1,404	2,154	2,188
Females	577	241	865	897
Total males and females	2,262	1,645	3,019	3,085
Grand Total	9,666	8,855	10,332	9,347

From the figures in Table 3, it appears that the total employment in the iron ore mines located in Bihar is in the neighbourhood of an annual average of 10,000. To this figure we may add the employment in the Gorumahisani Mine, which averages at about 1,500 men and women. The mines in the Keonjhar State, owned by the Orissa Mineral Development Co., Ltd., have an establishment of about 675 workers, apart from workers employed by Contractors and numbering about 1,600. If we add this figure also, and another 1,000 for all the smaller mines, we get a total of about 14,775 for Bihar Province and adjoining States. Apart from this, the only important area where iron ore is produced on any scale is the Mysore State,* where the average employment is about 500. *Thus, the final figure for India, as a whole, may be in the neighbourhood of* 16,000. It must be stated, however, that this figure is not by any means a very steady figure, for the contractor's labour is a dark horse, and we may expect the figure for this to be not only unestimable but also highly fluctuating.

For employment at the three principal mines investigated by us, *viz.*, those at Noamundi, Gorumahisani and Gua, detailed figures are given in Table 4.

*Cf. *Industry in Mysore* (Mysore Census, 1941) by P. H. Krishna Rao, (p. 11).

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TABLE 4.

Employment in Important Mines.

Mines.	August 1939.									December 1944.								
	Company's labour				Contractor's labour					Company's labour				Contractor's labour				
	Piece-rate.	Time-rate	Male	Female	Total	Male	Female	Total	Grand Total	Piece-rate	Time rate	Male	Female	Total	Male	Female	Total	Grand Total
Noamundi	2,676	1,064	1,003	204	1,207	1,605	928	2,533	3,740	2,005	2,132	2,100	560	2,660	834	643	1,477	4,137
Gorumahisani	1,384	737	632	105	737	(a)	(a)	1,384	2,121	1,657	1,119	881	238	1,119	(a)	(a)	1,657	2,776
Goa	2,727	942	856	86	942	1,932	795	2,727	3,669	1,757	541	484	57	541	1,684	673	1,757	2,298
Total ..	6,787	2,743	2,491	395	2,886	3,537	1,723	6,644	9,530	5,419	3,792	3,465	855	4,320	1,918	1,316	4,891	9,211

(a) Not available separately for "male" and "female" labour.

The average daily number of workers working in the three mines at Noamundi, Gorumahisani and Gua was 9211, in the month of December 1944, while the figure was 9,530 for the month of August 1939. Thus, the total strength showed a slight fall of about 3 per cent., although individual mines show some disparity. Thus the Noamundi and Gorumahisani mines of the TISCO show a rise from 3,740 to 4,137 and from 2,121 to 2,776 respectively, while there was a steep fall in the number of workers employed in the Gua mines. Coming to the classification under piece-rate and time-rate workers, the total number of piece-rate workers was 6,787 in August 1939, but 5,419 in December 1944. On the other hand, the number of time-rate workers has gone up from 2,743 to 3,792. As regards classification by sex, the total male labour employed by companies and contractors fell from 6,028 to 5,383, while female labour employed rose from 2,118 to 2,171. This shows that there has been taking place some amount of substitution of female for male labour, which is probably due to the scarcity of male labour caused by the war demand. Finally, if we refer to classification under company's labour and contractors' labour, it will be seen that while company labour has risen from 2,886 to 4,320, contractors' has gone down from 6,644 to 4,891. This is a hopeful sign, for from the standpoint of labour the contractor system has, as we shall see later, given rise to serious evils.

Length of Service.—Management of the TISCO mines at Noamundi and Gorumahisani could furnish information regarding the length of service of their operatives (company labour only). The information is tabulated below.

TABLE 5.

*Length of Service of Company Labour.**

Length of Service	Noamundi		Gorumahisani	
	Number	Percentage	Number	Percentage
Between 0 and 1 year ..	649	30·97	305	24·03
Between 1 and 5 years ..	745	35·54	436	34·36
Between 5 and 10 years ..	519	24·76	235	18·52
Over 10 years	183	8·73	293	23·09
Total	2,096	100	1,269	100

* The figures for Noamundi refer to the date 31-3-44, while those for Gorumahisani to 3-2-45. Hence the slight disparity between these figures and those in Table 4.

In view of the fact that these mines have been working for nearly thirty years, the predominance of workers in the groups 0-1 and 1-5 suggests a high labour turnover and this is confirmed in figures of labour turnover given later on. It appears, however, that the position at Gorumahisani is slightly better than at Noamundi ; for, while in the group " over 10 years " the percentage of workers is less than 9 per cent., at Gorumahisani it is slightly more than 23 per cent. of the total number of workers.

Service Rules.—There are works service rules and labour service rules formulated by both the Companies, the TISCO, and the I.I. & S. Co. for workers. Workers are classified as permanent and temporary. 63 per cent. of the workers at Gorumahisani and 48 per cent. of the workers at Noamundi

are permanent. The Mining Engineer at Gua stated that only a few workers under him were temporary, a large majority being permanent. It must be noted, however, that this relates to company's labour ; as regards contractors' labour, there is no permanency of any kind. Permanent workers are entitled, under the rules, to sick leave, privilege leave, bonus and other privileges. Temporary workers are generally given preference for being taken into the standard force of permanent workers. It was stated that after 1 year of satisfactory service temporary workers generally become permanent and enjoy the privileges of permanency.

Recruitment.—The Companies recruit their own labour direct locally. Labour for contract work in the quarries is recruited by the Contractors through recruiting *sardars* or sub-contractors from the surrounding districts. The recruiting *sardars* are paid commission by the contractors. If the Companies are in need of labour, they ask their mates to inform workers and the news is thus spread in the surrounding villages that work is available. If necessary, mates are sent to the villages to recruit the required labour. But mostly the workers who need jobs muster strong at the Companies' offices and are enlisted according to the daily requirement. The Companies, as well as the contractors, are satisfied with the present system and are not much in favour of establishing Employment Exchanges. It was stated that Employment Exchanges would probably be useful only for skilled and semi-skilled labour, who have acquired the habit of regular work. Local unskilled labourers, many of whom own land, do not, as a rule, seem to desire regular and continuous work preferring to obtain employment as and when they have need of money or food and when there is no agricultural work.

The Contract System.—The workers are generally opposed to the contract system of work, for the contractor is not amenable to the law to the same extent as the principal, the Company. The evils from the worker's standpoint, have been stated by the Royal Commission on Labour in another context, in the following terms*:—

> "Both in law and in fact the manager is responsible for the safety of the workmen : he determines where coal shall be worked and his decisions have the closest effect on the security of the miner. But even the safety men are not the manager's subordinates, being selected and paid by the contractor. The law also holds the manager responsible for compliance with its provisions in respect of hours work, holidays, the employment of women, etc. As a rule, he has also the responsibility of housing and other matters (*e.g.*, water supply) affecting the welfare of the worker outside the mine. Yet he has ordinarily no responsibility for the selection of the workers, the distribution of their work, the payment of their wages or even the numbers employed."

The position as stated by the Royal Commission may be said to broadly apply to iron ore mining as well. There is no doubt that owing to competition among the contractors, there is a tendency to accept lower and lower rates, and the ultimate burden falls upon the workers who are forced to accept low wages. The remarks of Mr. Keenan, quoted at the beginning of the Chapter, are fully borne out. For this reason, the TISCO has had to fix the rates payable by contractors to the workers, but in spite of this, there is still room for doubt whether workers are secured against undue exploitation. Dr. F. G. Percival of the Noamundi Mines stated that the contract system was favoured by Companies because the raising cost is thus fixed and they know beforehand

* Report, p. 119.

the cost-accounting of the work, which eliminates all risk for them. The system was also adaptable to seasonal variations of labour supply. He also admitted that the contract system meant less amenities for labour and possibilities of underpayment. The Manager, C. P. Syndicate, was of the view that they could do without recruiting *sardars*. Recruiting *sardars* were locally respected and were responsible for the workers' conduct and safe return of tools and implements by workers. On their responsibility, advances of money were often made to workers. The TISCO have forbidden the employment by contractors or sub-contractors or recruiting *sardars* and there is the following clause in their standard form of agreement with contractors :—

> " The contractor shall not without the written permission of Company previously obtained enter into partnership with any person in respect of the working of this contract or introduce any sub-contractors to work under him or assist or in any other way transfer or part with his interest in this contract."

Labour Turnover.—In accordance with the rules of the TISCO, those workers who are absent for more than 30 days at a stretch without lodging any information in the Mines Office, are discharged on the ground of long absence. The chief reason of a high labour turnover in the mines was stated to be the long absence of workers without leave. They just go home and stay for months together. Relatively few of the workers have acquired the habit of regular work and the remainder do not appear to desire it preferring to find work only when shortage of food or some such necessity forces them to take up work in the mines. Labour turnover is generally greater during the agricultural season, and workers who own land leave work temporarily and do not return necessarily to the same job. Apart from the migratory habit of the workers, an equally important reason of the turnover appears to be that work at mines is far from attractive to them. Nor is it sufficiently remunerative. Hence the workers have to make their seasonal exodus to supplement their poor incomes. Work on the agricultural farms is also less strenuous and more healthy, and moreover the worker prefers to work nearer home. Not only land-owning labour, but also landless labour, which preponderates, returns to agriculture seasonally for these reasons. The conclusion is, therefore, irresistible that if the mining centres are made more attractive and also more paying to the workers, they will not migrate to the villages, but stick to the mining work.

In the accompanying table (Table 6) figures are reproduced for labour turnover have a better record of attendance and service.
under separate heads according to causes for Noamundi. The labour turnover at Gorumahisani was 77 per cent. of the average number of workers employed during 1939, but it fell to 18 per cent. in 1944. The higher percentage for 1939 is accounted for by the fact a large number of temporary workers, as many as 437, were turned out in retrenchment. The labour turnover at Noamundi in the two years, 1939 and 1943, was 52 per cent. and 43 per cent. respectively. At Barabil, it was 57 per cent. in 1943, but this figure apparently includes contract labour. The turnover at Gua was only 1 per cent. in 1939 and 5 per cent. in 1944. This low turnover is largely due to the fact that at the Gua mine, there are hardly any temporary workers, and the permanent workers at Gorumahisani, Noamundi and Gua. Figures were not available

TABLE 6

Labour Turnover.

Name of mine	Year.	Average daily number of workers employed during the year.	Total number of workers who left during the year.										
			Permanent.					Temporary.					
			Retirement.	Dismissal.	Discharge for long absence.	Voluntary.	Total	Reduction	Dismissal	Voluntary	Discharge for long absence.	Total	Grand Total
Gorumahisani ..	1939	915	1	1	25	14	41	437	..	224	1	662	703
	1941	1,141	5	..	53	35	93	21	2	66	22	110	203
Noamundi ..	1939	1,060	..	..	..	..	126	..	..	..	..	421	547
	1943	1,817	..	..	..	..	106	..	..	..	..	673	779
Gua	1939	929	..	2	..	8	10	..	..	..	..	..	10
	1944	565	..	1	25	25	26	..	..	.	..	..	26

Figures were separately supplied for the Barabil Iron Mines (Keonjhar State). In those mines, during 1944, the number of workers who left service was 57% of the total (2,256). This apparently includes contractors' labour.

Absenteeism.—Figures for absenteeism were not available in the required form, for although absenteeism is recorded in the daily labour registers, no separate records are kept in an analysed form. Absenteeism was stated to be highest during the monsoons, during and after local festivals, on the day following the pay-day and on the bazaar day. It was contended on behalf of the employers that if wages were increased, absenteeism would go up, but this contention is open to doubt. It might be equally reasonable to assume that absenteeism is actually *due* to low wages. Workers alleged that they had to stay away from work very often due to starvation, or lack of proper clothing during monsoons and chilly winter. If they ventured out to work under such circumstances, they would fall ill and lose their income altogether. It was stated that search of fuel for cooking was also another reason. It took at least one day in the week to arrange for fuel. They had to go to the forest and cut fire-wood for use during the week. Had the management provided cheap and ready fuel at the mines, they would not have absented themselves for work for that day. Lack of proper housing was also stated to be an important cause of absenteeism. The workers, who were not provided housing accommodation, had to walk several miles daily. Continuous work for 8 or more hours, followed and preceded by a long trek of 6 or 10 miles each way tired the worker out and it was not surprising that there was no energy left in him to repeat the performance every day. Sometimes he must take it easy. Addiction to drink was admitted as a cause of absenteeism, but the workers justified this on the ground that the work was so strenuous that they required some pick-me-up now and then, and that today was the cheapest and most exhilarating drink available in the vicinity.

Miscellaneous.—There is no provision for the training of apprentices in any of the mines. There is a system of incremental promotion in the TISCO mines, as will be seen from the grade list reproduced in Appendix I. The Indian Iron and Steel Co. mines have no such system ; nor was it prevalent at the Barabil mines. In these mines, promotion depends upon the discretion of the management, who think that length of service should not be the only factor governing promotion or increase in pay, but that ability and efficiency should also be taken into account. They think that unless this is done, the system may result in low efficiency due to decreased incentives to work. The management's view, however, is somewhat erroneous in that it fails to draw a distinction between incremental scales of pay and promotion to higher posts. It is clear that while promotion to a higher post must be justified on grounds of ability and efficiency, there is no such principle involved in the provision of incremental scales of pay, which only provides security of income with advancing age and increasing family responsibilities of the worker.

Weekly holidays are paid holidays for monthly-rated staff and unpaid for the daily-rated workers. At Gorumahisani and Noamundi, in addition to weekly holidays, one holiday for the Founder's Day is also given ; this is paid for the monthly rated staff and unpaid for the daily-rated staff. At Gua also, the same system prevails, except that there is no Founder's Day here. Apart from these holidays, all monthly paid staff, except menials, are allowed some privilege leave. At Gua, a total of fifteen days' leave with pay is allowed per year, but if any worker proceeding on such leave overstays his leave by seven days or more, he is considered as having resigned. Privilege leave is granted by the Company only to a limited number of workers at one time. If leave is not availed of, a cash payment of fifteen days' pay is made in lieu of leave. At the TISCO mines, the leave rules are the same as at the Jamshedpur Works. The Leave Rules are summarised in Appendix II. Broadly speaking, the monthly-paid, monthly-rated staff is entitled to 30 days' privilege

leave and 5 days' casual leave for every completed year of "satisfactory" service. The monthly-paid, daily-rated staff, on the other hand, is entitled to 14 days' privilege leave only for every completed year of "satisfactory" service. Apart from this, festival leave of 2 days is available to both types of workers every year. Furlough leave of six months is available to monthly-paid, monthly-rated staff drawing more than Rs. 30. Accident and quarantine leave is available under special circumstances. At Barabil, all monthly paid staff, except Chowkidars and menials are allowed a maximum of one month's leave per annum with pay.

Workers are neither suspended nor sent on forced leave. In the TISCO mines, for indiscipline and slackness of work, or other trivial matters the worker is warned verbally in the first instance. For repetition of offence, increments or promotions are stopped, or he is reduced to a lower grade or to an inferior post. If the worker still persist in his misconduct, he is discharged from service. In order to give a worker an opportunity to meet any charge before he is punished, the nature of the charges against him are stated in writing and the worker is asked to give explanation. There are no fines and no fine fund, except in some of the smaller mines (*e.g.*, at Barabil), where the fines are credited to a Welfare Fund. There is no labour officer to enquire into the grievances of workers, but if they have any grievances against any member of the supervisory staff, they can approach the Manager at the mines direct. Even the contractor's staff are at liberty to complain to the company's manager.

Wages and Earnings.—Labourers in iron ore mines can be divided into two board categories. The first category is known as Cutters, while the second is known as Loaders. For the former category, wages are generally paid on a piece-rate basis, while the latter is paid on a time-rate basis. Generally, the Companies get the work of raising iron ore done by contractors' labour. Only at Noamundi, the TISCO have begun departmental mining and excepting the miners, wages are paid on a time-rate basis by the Company. At Gorumahisani, as well as at Gua, the Company concerned has not taken up departmental mining. So they have not got any piece-rate system for workers. There are two separate rates for male and female coolies, for the jobs done by the two sexes are different. Rates of coolies are the same both at Noamundi and Gorumahisani, because both mines are owned by the same company, the TISCO, and the wage rates to be paid are fixed at the Jamshedpur head office of the Company in the Mines and Quarries department.

The minimum wage of a male coolie is 5 as. and that of a female coolie 4 as. There has been little or no increment in the basic wage rate since the outbreak of the war. The TISCO rates have been for long from 5 as. to 7½ as. for male coolies and from 4 as. to 5½ as. for female coolies. The minimum wage of male coolies at Gua under I. I. & S. Co., is 5½ as.; for female coolies, the rate is 4 as. There has been no increase in the wages since 1938.

Cutters.—There are four different systems of paying the wages of cutters : *viz.*, (a) the Box System ; (b) the Tub Rate ; (c) the Cubic Foot rate ; and (d) the Tonnage Rate. The systems are explained below.

(a) *The Box System* : This system is mostly prevalent in the mines and it is very convenient for the workers. In the Box System, workers can very well remember how many boxes they have raised in a particular week. This system prevails at Gorumahisani and Noamundi. The workers at Gorumahisani are paid at 0-3-9 to 0-4-6 per box (12 c. ft. capacity) by the contractor, because the company does not itself do any mining there. These rates are inclusive of dearness allowance. The variation in the rates is according to

hardness or softness of the ore. In 1939, the box rate was 0-2-6 per box, which shows that there has been some increase in the rate lately. At Noamundi, there were two rates, 3 as. per box for soft ore and 4 as. per box for hard ore. In the case of company workers, there has been no increase since the outbreak of the war, and the Company's rate is exclusive of dearness allowance. It was stated by the Manager of the C.P. Syndicate, who are contractors for the TISCO at Gorumahisani, that miners could generally raise 1½ boxes per day, while some workers could raise as much as even 2 or 2½ boxes. At Noamundi, workers sometimes raise 6 boxes working in pairs, *i.e.*, 3 boxes per worker. For 6 boxes, the two workers would get Rs. 1-2-0 plus 0-9-0 (dearness allowance), *i.e.*, a total of Rs. 1-11-0 per paid or 0-13-6 per worker per day. According to the Manager, the contractors' workers earned on the average 6 as. per day. In these mines, formerly, wages were paid on the basis of *Chattas* (about 130 to 150 c. ft.) by the contractors. Since 1938, Dr. F. G. Percival of the TISCO introduced the box system, by which the miner's earnings were increased to some extent. It was stated by the workers' representatives before the Bihar Labour Enquiry Committee that by the *chattas* system, the worker could get no more than 10 *pies* a day ; but when the box system was introduced wages went up, and when the contractors found that workers were earning more money, they reduced the rate per box and also compelled them to fill up the boxes 4 to 5 inches higher over the margins.

(b) *The Tub Rate* :—The Tub rate was prevalent at some mining faces at Noamundi. For soft ore, workers are paid at Re. 1 per tub and for hard ore, the rate is Rs. 1-5-6 per tub. Each tub contains 64 c. ft. of iron ore. In the tub rate system, the earnings of workers are generally greater because they are tempted to fill the tubs and then take respite. Generally, three workers are able to fill two tubs, which would bring Rs. 2. Besides this, they get Re. 1 as dearness allowance ; so, in the tub system, the earnings are generally nearabout Re. 1 per worker per day.

(c) *The Cubic Foot Rate.*—The cubic foot rate was found to be prevailing in the case of cutters under some contractors at Noamundi and also under departmental mining in some places. For soft ore, the rate is Rs. 1-9-0 per 100 cubic feet, and for hard ore, Rs. 1-12-0 per 100 cubic feet. One hundred cubic feet of iron ore is equivalent to about 8 boxes. Calculated on the basis of the box rate, the rate would come to 0-3-0 per box of soft ore, and 0-3-3 per box of hard ore. Workers under contractors and companies both are often paid according to cubic foot rate, but there is a difference between the actual earnings of the workers under the two classes of employers. The Company pays 50 per cent. as dearness allowance, while the contractors pays only 25 per cent. of the wages as dearness allowance. The cubic foot system gives rise to abuses sometimes, as the *sardars* reduce the number of cubic feet in the final accounts and thus attempt to rob the poor workers, who cannot so easily remember the exact figures from day to day. This system, therefore, was naturally objected to by workers, who would like to see it abolished.

(d) *Tonnage Rate.*—This system is not very common, but according to the Manager of the C. P. Syndicate (contractors) at Noamundi, some workers are paid at 5 as. per ton in a few mines. It was stated that at Gua also, under the contractors, who had adopted the tonnage system, wages averaged at 5 as. per ton. Thus it appears that the wages under the tonnage system at Gua and Noamundi are equal. According to Mr. R. B. Penman, Mining Engineer of the Indian Iron and Steel Company at Gua,* one ton of iron ore corres-

* Report of the Bihar Labour Enquiry Committee, Evidence Vol. IV Part B, p. 433.

ponds to 16 c. ft. Thus, to relate the tonnage rate to the other rates, the cubic foot rate for 100 c. ft., *viz.*, Rs. 1-12-0 (hard ore) and Rs. 1-9-0 (soft ore) roughly corresponds to 6 times the ton rate. Likewise, the tub rate (6¼ c.ft.) of Rs. 1-5-6 per tub (hard ore) and Re. 1 (soft ore) corresponds to 4 times the ton rate. Also, the box rate (12 c.ft.) of 3 as. per box (soft ore) and 4 as. (hard ore) corresponds to 4|3 times the ton rate.

Loaders.—The other important category of miners comprises the loaders, who are mainly paid on a daily-rate basis. Loaders under contractors at Gorumahisani are paid at the rate of 8 as. per day, inclusive of dearness allowance. Those under the contractors at Noamundi are paid 7 as. a day (for males) and 6 as. a day (for females), inclusive of dearness allowance. Previously, the wages of male and female loaders were 5½ and 4½ as. respectively. But at the instance of the Company, the rates were raised by 1½ as. so as to include dearness allowance. According to the statement of one contractor, at Noamundi, the wages for male and female loaders were 4 as. and 3 as. per day in 1933-34. Company loaders are classed as coolies and get the wages of their grade, *viz.*, 5 as. to 7½ as. (for males) and 4 as. to 5½ as. (females) according to the duration of service.

Drillers.—This is a sub-category of cutters. Their work is to make holes in the rock with the help of hand-drills. For drilling the men work in pairs, one worker placing the drill in position, while the other goes on hammering from above. Drillers are generally paid on a piece-rate basis, the rate varying from 1 anna per foot to 4 as. per foot according as the ore is soft or hard. The earnings of these men, on the average, come to the same as those of other cutters.

Piece-rate workers and time-rate workers differ in two respects. Firstly the piece-rate workers are not sufficiently regular in attending to their duties; they generally come late and do not confine themselves to the working hours strictly. Secondly, absenteeism is greater in the case of piece-rate workers, who generally work for only 4 days in the week.

A detailed statement, showing the wages of different grades and classes of workers, including not only the miners proper but also the supervisory staff, was supplied by the TISCO. This is given at the end of the Report as Appendix I.

Dearness Allowance and Bonuses.—Permanent workers of the TISCO, who get wages up to Rs. 25 p. m., are given 50 per cent. of their wages as dearness allowance. After this there is a sliding scale, as may be seen from the table below :—

TABLE 7.

Dearness Allowance at Noamundi and Gorumahisani.

Category.	Percentage	Remarks.
Up to Rs. 25 p.m.	50%	These revised scales of dearness allowances were made applicable to the TISCO mines and quarries with effect from 1st October 1944.
Over Rs. 25 and up to Rs. 50 p.m.	30%	
Over Rs. 50 and up to Rs. 75 p.m.	25%	
Over Rs. 75 and up to Rs. 100 p.m.	20%	
Over Rs. 100 and up to Rs. 300 p.m.	15%	
Over Rs. 300 and up to Rs.1,500 p.m. ..	10% (subject to a maximum of Rs. 100 p.m.,	

Workers, under the contractors at Noamundi get 25 per cent. of their basic wages as dearness allowance. At Gorumahisani, contractors pay no dearness allowance. Workers under the Indian Iron and Steel Co. Ltd., at Gua, get extra food allowance at the rate of 1½ annas per Re. earned. At Barabil, the Orissa Minerals Development Co. Ltd., have no cash allowances or bonuses, but have been selling foodstuffs (e. g. rice, *dal,* wheat products, oil etc.) at concession rates generally equivalent to those ruling in June 1942. Food concessions are also prevalent elsewhere. The TISCO were selling rice to their workers at the rate of 5 seers per Re., but Government objected to this and asked them to sell it at a rate not below the controlled rate, which is Rs. 12-8-0 per maund. Since then, they are selling rice at Rs. 1-9-0 per 5 seers, and showing 0-9-0 as rebate. Thus the workers are getting their concessions in any case. The contractor at Noamundi is selling rice at 5 seers per Re. to his staff. The Indian Iron and Steel Co. at Gua sell rice at 10 seers per Re., which is approximately the pre-war rate ; but a worker does not get rice worth more than 8 as. at a time per week. The C. P. Syndicate contractors have opened a grocery shop for selling foodstuffs at controlled rates to workers. Fuel is supplied free to a portion of the company workers at Noamundi, and this is also the case in other mines, but the concession is restricted to a few selected workers only.

Apart from food allowances and concessions, in the TISCO mines, company labour get 2 months' wages as *profit-sharing bonus* every year. Besides, those workers who are absent for only one day during four weeks of work are paid two days' wages as *attendance bonus.* Those who are absent for only two days during 4 weeks get one day's wages as attendance bonus. The main difference between dearness allowances and bonuses seems to be that while the former are temporary (for the duration of the war), the latter are somewhat permanent in character. Moreover, dearness allowances are paid to all workers, permanent as well as temporary, while the profit-sharing bonus is paid only to permanent workers, though attendance bonus is paid to all after one year's satisfactory service.

Overtime.—Overtime pay is calculated mostly at a flat rate. It was stated by the Mining Engineer at Gua that on Sundays or weekly rest days even if the workers work for 4 hours, they are paid a whole day's wage. Registers are maintained for recording overtime. At the TISCO mines, these are open to inspection only by the Mines Inspectors but not by the workers or their representatives, but at Gua mines, they are open to inspection by anybody.

Agency of payment.—Generally company labour is paid directly by the companies themselves, but contractor's labourers are paid by recruiting *sardars.* Both the TISCO and I. I. & S. Co. have their raising contractors. The TISCO pay the raising contractors at 10 as. per ton including war allowance at Noamundi and at 10 as. 11 pies per ton including war allowance at Gorumahisani. The Company at Gua (I. I. & S. Co.) pays to raising contractors an inclusive rate for mining spoil clearing, tram line maintenance, supply of stone, including explosives, holes boring and delivery of ore to the despatching points. Rates vary according to the nature of ore and earth cutting. They vary from 0-12-4 to 1-2-0 per ton. The TISCO supply explosives to their contractors.

Contractors, as stated earlier, pay their workers through *sardars,* who are paid commission by them. The commission varies from 2 pice per box to 1 pice per box, and is calculated on the basis of the number of boxes raised by workers and brought by a particular *sardar* during the week. There were some 4 or 5 recruiting *sardars* employed by the Company at Noamundi, whose rate of commission was 1½ annas per tub or 1 pice per box. It was claimed that there

were no complaints from workers regarding underpayment, but some cases of illegitimate deductions were noticed by us *e.g.*, removal of odd pies like 3 pies or 9 pies, in the wages to be paid, and deduction of 4 to 8 annas as security for tools. The workers were too ignorant and illiterate to lodge any protest.

Miscellaneous.—The payment of Wages Act is not applicable to mines and quarries ; workers are not, therefore, sufficiently protected from malpractices. The wage-period is both the week and the month here. Generally speaking, wages are paid a week after they are due in the case of weekly-paid workers, and after 10 days in the case of monthly-paid workers. Companies pay their staff punctually, but contractors hold up payments for weeks at a time, with the result that the workers are put to a lot of trouble. No efforts have been made to standardise wage rates, except in the TISCO mines. The reason advanced is that labour supply is too unequal to justify standardisation. At the TISCO mines, as well as at Gua, in the case of departmental labour, round and square paper cards are used for entering attendance, wages and allowances due ; the worker is required to hang the card round his neck during working hours.

Working Conditions

Shifts and Hours of work.—Normal hours of work are 8 for company labour, but under contractors the figure may be often as high as 12 hours. The position at Noamundi and Gorumahisani, under the TISCO and at Gua under the I. I. & S. Co., is shown in Appendix II. Single, double and multiple shifts (of 8 hours in each case with varying spread-overs) are worked. Mining work is done only in one shift. Loading is often done in multiple shifts, especially when the pressure of work is great. There are no overlaping shifts anywhere. Loading staff generally works from 9 a.m. to 1 p.m. and again from 2 p.m. to 6 p.m. with one hour's rest interval. The mining staff works from 8 a.m. to 1 p.m. and again from 2 p.m. to 5 p.m. (at Noamundi and Gorumahisani). At Gua, there is a single shift for the office, *viz.*, from 7-30 a.m. to 5 p.m. with 1½ hour's interval for rest. There are double shifts (ropeway shifts) also : one is from 7 a.m. to 4 p.m. with one hour's interval, and the other from 4 p.m. to 1 a.m. with one hour's interval again. Broadly speaking, the arrangements for different classes of workers are different, but the principle of the shift is the same. Night shifts are worked only when there is pressure of work. The managements of the Companies are not much in favour of working night shifts normally. All agree that night shifts tell upon the health of workers and also their efficiency, owing to which production is less satisfactory in night shifts. Moreover, mines are not continuous-process plants.

For prevention of accidents, safety rules pamphlets are published and workers are warned to take care of principles laid down in them. Near the offices of mines only laterines are provided, but nowhere near the mining faces. The employers argued that workers preferred to go out in the open. Arrangements for drinking water are not adequate. Most of the workers have to carry their own water with them. No shelters are provided at the mining faces for the miners, presumably because there are many trees round about. But in the rainy season, the trees cannot provide shelter. There are at some mines, a few sheds here and there, with corrugated or thatched roofs, but actually these are meant for the blacksmiths, who sit there to sharpen the miners' tools.

Housing.—Housing has been provided for workers at most of the mining centres. At Gua, according to a statement by the Mining Engineer, 100 per

cent. of the workers are housed by the Company. Contractors' labour also is housed in the Company's quarters. Nearly 25 per cent. of the workers are housed at Gorumahisani by the Company and 90 per cent. of the contractors' workers are accommodated in contractors' quarters. At Noamundi, 49 per cent of the Company's labour is provided with quarters. Some of the contract labour is also housed by contractors. The TISCO have required their contractors to build a sufficient number of quarters for their workers and the contractors have taken up housing schemes.

The total number of quarters at Noamundi is 458. As many as 32 women employees live with their husbands ; 26 bachelor workers have been provided accommodation in the mess, while 101 workers come from their houses in the neighbouring villages. There are 5 bungalow attendants, who live in the out-houses of bungalows. Altogether, 622 workers have been accommodated out of a total of 1,271 workers who form the standing force of the Company. The percentage thus comes to 49 for permanent workers. If, however, we include the temporary workers, the percentage will be very much lower, about 24 per cent.

The types of quarters provided at Noamundi are several. Full information is available in Appendix III. The information for Noamundi and Gorumahisani is summarised very briefly in the table below :

TABLE 8

Type of quarters.

Types of Quarters.	Accommodation.	Number of Qrs.		Persons entitled.	
		Noamundi.	Gorumahisani.	Qualification.	Number housed at Noamundi only.
Senior type.	3 bed-rooms, 3 small rooms, 2 verandhas, latrine and bath-room.	3	*Nil*	Officers . . .	3
Type A	2 bed-rooms, 3 small rooms, 2 side Verandhas, latrine and bath-room.	18	11	Staff drawing more than Rs. 75.	18
Type B	2 bed-rooms, 1 kitchen, 1 store room, 2 verandhas, latrine and bath- room.	8	18	Staff drawing between Rs. 55 and 75.	33
Type C	2 bed-rooms, 2 verandhas, 1 kitchen, 1 store room, latrine and bath-room.	21	30	Staff drawing between Rs. 35 and 55.	62
Type D	1 bed-room, front verandhas, 1 kitchen, bath-room, latrine. (10′ × 10′)	66	69	Staff drawing between Rs. 12 and 35.	175
Type E	1 Room, both sides verandhas.	340	92	Staff drawing less than Rs. 12.	980
	Total ..	456	220		1,271

Besides, there are bungalows for Directors, Managers and Assistant Managers at both places.

The extent of congestion in these quarters is not much greater than in other industrial centres. In some of the rooms allotted to workers, workers live with families and the average number of occupants is about 5, husband, wife and three children. However, in many single-room tenements of Type E, the congestion is greater and males and females who are not related or even acquainted with one another live together. As the accommodation is rent-free, no objection is raised by workers. In contractors' quarters, the state of congestion is worse, and 5 to 10 workers often occupy small rooms of dimensions not greater than 6 ft. × 8 ft.

The superior staff are accommodated in *pucca* houses with re-inforced concrete roofing and semi-*pucca* houses with corrugated sheet roofing covered with country tiles. According to the type of quarters, floors are cemented, brick-paved or left *kachcha*. The rooms occupied by the workers measure 10 ft.×10 ft. and are built in a line. Quarters up to Type D have been provided with bath-rooms and there is sufficient ventilation. Filtered and chlorinated water for drinking purposes is supplied through pipe lines to all houses of the superior staff and chlorinated water is also supplied through pipe lines to coolie huttings. The coolie huttings quadrangle at Noamundi has been lighted electrically all round, and electric street lighting has been up to the *chowkidar* huttings and to the power house. But in the coolie huttings themselves there is no electric lighting. For the better quarters, from Type A to Type D, privies are built inside the quarters themselves ; but for coolies' huttings latrines are provided separately for males and females in the vicinity of quarters. Roughly, there is one latrine for ten workers. On the whole, quarters supplied by companies to workers at all mines are neat and clean, and the sanitary arrangements, especially at Noamundi and Gorumahisani are satisfactory. Workers' quarters are situated not very far from the mining faces and no transport is necessary. Market and post-office facilities are also available near the workers' quarters. Allotment is made according to pay and seniority. No sub-letting is allowed and eviction is only by legal process. There are no facilities for workers to build their houses even at their cost. Workers are not, it seems, encouraged to build houses on a long lease. Generally the employers possess surface rights under the mining leases. Wherever necessary, they have also availed themselves of the Land Acquisition Act for housing purposes.

Contractors' labourers at Noamundi and Gorumahisani live partly in contractors' houses. The houses owned by contractors at Gorumahisani were tolerably good, being neat, clean and sanitary, with an adequate number of privies and water taps. But at Noamundi, the contractors' quarters were found to be hopelessly bad. Almost all the rooms were in a dilapidated condition and sanitary arrangements left much to be desired. The quarters may be described as living dens, unfit for human habitation. But the Manager of the Noamundi Contractors stated that he hoped to build new quarters as approved by the Company in the near future ! Sanitary arrangements at Gua also were unsatisfactory. At Gorumahisani some 40 workers live in houses let out by private landlords. These are *kachcha* houses and not so good as the company houses. Non-resident workers, coming from six or seven miles daily, lived in their own huts in the villages. These are generally thatched cottages. Nearly 50 per cent. of the workers thus lived in the villages at Gorumahisani, and about 10 per cent. at Noamundi.

The TISCO have very big schemes of housing for their workers, but during war time, owing to difficulties in getting materials, construction has been restricted at the moment. The Noamundi contractor put forward the same plea

Migration.—It was stated by managers of mines that company labour was generally stabilised and permanent, but that contractors' labour was mainly migratory in its habits. As stated earlier something like 50 per cent. of the contractors' labour at Noamundi is drawn from the neighbouring Districts and States, the Gangpur State, the Mayurbhanj State, the Keonjhar State, Chhattisgarh, and the Bilaspur and Ranchi Districts. Contractors' labourers at Gorumahisani largely belong to the Mayurbhanj State and are generally Kols and Santhals. At Gua, the workers belong to the Eastern States and the Sambalpur District. At Barabil, workers were drawn also from Keonjhar, Mayurbhanj, Gangpur, and Bonai, South Bihar and the Districts of Sambalpur and Bilaspur. There is seasonal migration of the workers for agricultural purposes. According to the Manager of the C. P. Syndicate, as many as 75 per cent. of the workers at Gorumahisani return to their villages for agricultural operations during July and August. From the middle of November to the middle of December, they again go for harvesting. Broadly speaking, contactors' labourers migrate from the mines to the fields, while company labour is more stationary. There also exists some migration between the mines *inter se* according to the availability of work.

Indebtedness.—No accurate data for indebtedness were readily available. The Mining Engineer at Gua stated that only a small proportion of the workers was probably indebted. This could be confirmed from the workers themselves, who said that they did not like to incur debts but that when there was nothing to eat they would rather starve than borrow. Recruiting *sardars*, however, are known to have lent to workers. Their natural desire to have some hold on the labour employed by them and the refusal of labour to work unless some money is advanced for the purpose are both responsible for this. The *sardars* recover the advances by making deductions from the wages for both principal and interest. Interest is charged at the rate of 1 anna per rupee per week, *i.e.*, more than 300 per cent. per annum ! The amount of indebtedness is usually of the order of Rs. 5 or 10, but in some cases it is as high as Rs. 50 or more. There are no Pathan or Kabuli moneylenders here.

Age Statistics.—Under the Indian Mines Act, " young persons " (between 15 and 17 years) can be employed in mines only if a doctor certifies, while " children " (below 15 years) cannot be employed at all. The Mining Engineer at Gua stated that there was a tendency among doctors to under-estimate and among the workers to over-estimate age. The following information was available, for what it is worth, from the Noamundi and Gorumahisani mines.

TABLE 9.

Age Distribution at Gorumahisani.

Completed (*a*) but not (*b*)						Males.	Females.	Total.
(*a*)	(*b*)							
12	15	..	..	..	..	..	1	1
15	17	..	..	..	..	5	2	7
17	20	..	..	..	..	30	15	45
20	25	..	..	..	..	87	53	140
25	30	..	..	..	..	249	71	320
30	35	..	..	..	..	201	58	259
35	40	..	..	..	..	199	10	209
40	45	..	..	..	..	130	13	143
45	50	..	..	..	..	69	13	82
50	55	..	..	..	..	34	8	42
55	60	..	..	..	..	17	2	19
Above 60		..	..	..	..	1	..	1
				Total	..	1,022		8

It will appear from the figures that nearly 84 per cent. of the total strength of workers was concentrated between 20 and 45 years, and also that the model figure was between 25 and 30 years. It was stated that workers generally entered service at ages between 20 and 40 and retired before 60.

TABLE 10.

Age Distribution at Noamundi.

Completed (*a*) but not (*b*)				Males.	Females.	Total.
(*a*)	(*b*)					
12	15	..	..	*Nil*	*Nil*	*Nil*
15	17	..	..	*Nil*	4	4
17	20	..	..	147	267	414
20	25	..	..	421	312	733
25	30	..	..	627	184	811
30	35	..	..	446	115	561
35	40	..	..	327	49	376
40	45	..	..	190	12	202
45	50	..	..	76	6	82
50	55	..	..	19	2	21
55	60	..	..	8	2	10
	Above 60	..	..	1	*Nil*	1
			Total ..	2,262	953	3,215

In this set of figures also, the peak of the series is between the years 25 and 30, while 83.4 per cent. of the workers were between the ages of 20 and 45. The figures supplied by the Noamundi and Gorumahisani thus appear to be reliable, as providing an even frequency distribution and also a more or less constant dispersion of the figures as between Noamundi and Gorumahisani.

Welfare Activities.—No canteens or creches are provided in any of the mines. Sports are arranged at the schools and also swimming baths for workers are provided at Gorumahisani and Noamundi. For the superior staff, there are tennis and badminton courts at the TISCO mines, and there are football fields for workers but there is little encouragement given to workers to participate in such sports.

There is a well-equipped hospital at Noamundi with three wards for in-patients and one Medical Officer, one compounder, one dresser and a qualified nurse. Treatment is free and not confined to Company's staff only. In serious cases consultations are arranged with Jamshedpur medical staff or patients are transferred to the Jamshedpur hospital. At Barabil, two hospitals are maintained by the Orissa Minerals Development Company incharge of a qualified doctor, 2 compounders, one dresser, and nurse mid-wife. Treatment is free. There is a hospital each at Gorumahisani and Gua also. The medical facilities on the whole are adequate.

There is one middle school at Noamundi, one upper primary school at Gorumahisani, and one lower primary school at Gua for the education of workers' children. The workers have a grievance against the medium of instruction, which is at present Hindi. Formerly education was given through the medium of three languages, Bengali, Oriya and Hindi. Night classes were being held at Noamundi and Gorumahisani for teaching adult workers, but they were unsuccessful and had to be closed down. There are no schools for industrial or vocational training. Those wishing to be trained as fitters, carpenters, etc., are generally employed as helpers to such skilled and semi-skilled labour, in the first instance, and when they have picked up sufficient knowledge, they are promoted as carpenters, fitters, etc.

Working of the Various Acts.—Mines Act.—Mines in British India are governed by the Indian Mines Act of 1923 whereas those in the Mayurbhanj State are governed by the Mayurbhanj State Mines Order, 1937. So far as the provisions of these relating to labour are concerned, generally speaking, departmental or *sarkari* labour employed by the companies directly fared better than contractors' labour. In the case of the former, working hours and shifts were observed with care, but not so in the case of the latter, as we have already observed. Serious violations of the Act and the Order were noticeable in other respects. (1) *Display of Abstracts of Mines Act* : Abstracts are no doubt displayed in the offices of the mines, but the abstracts are in English which could hardly be followed by any worker. (2) *Shelters during rest intervals* : No shelters have been provided, as stated earlier. During the hot days, the workers spread themselves under trees. The so-called shelters are occupied by blacksmiths or others and are seldom used or usable by workers. (3) *Water* : There is no adequate supply of drinking water for workers at the mines. In most cases workers had to take their own water with them. At some places, there are so-called water-men to supply water, but this is an eye-wash. (4) *Employments of Non-adults* : The Indian Mines Act prohibits the employment of " children " below 15, absolutely, and of " young persons " (between 15 and 17) except with a doctor's certificate as to physical fitness. Under the Mayurbhanj Order, the lower limit has been reduced to 13 years but it appears that the law is sometimes violated in this regard. Inadequate inspection was responsible for continuance of these violations. The Inspector of Mines, stationed at Dhanbad, visits these mines once in a year, but it does not appear that he has any contact with the workers themselves. The Deputy Commissioner of the District is also an *ex-officio* inspector of mines, but he never visits any mine. He is hardly to be blamed for this, in view of the multifarious responsibilities of his office. In addition to these two, there is also a Mining Officer at Chaibasa, the headquarters of the Singhbhum District, who often visits mines, but his concern is mainly about the payment of royalties by the mines execution of leases, their renewal and such other things. The Mayurbhanj State has its own State Inspector of Mines, who inspected the Gorumahisani Mine for ten times during the last seven years. In the State, perhaps one Inspector might be adequate, but for British India, one Inspector, who has to look up mines and quarries of various kinds throughout his circle is not enough.

Workmen's Compensation Act.—The Indian Workmen's Compensation Act applies to mines in British territories : in the Mayurbhanj State, there is the Mayurbhanj Workmen's Compensation Order, 1937, which mainly follows the British Indian Act. Accidents are reported to the Chief Inspector of Mines and the Deputy Commissioner of the District in the case of mines in British India, and those in the State, are reported to the State Mining Officer. Managers of mines inform their head offices as well. Injured workmen are assessed as to disability by the Chief Medical Officer of the Company and payment is made according to the scale given in the Act. At the Noamundi Iron Mines of the TISCO, there were 16 accidents during the year 1943, out of which one was fatal and for which Rs. 500 was paid as compensation. In three cases of permanent disability, Rs. 479-8-0 was paid as compensation, while in 35 other cases of temporary disablement, Rs. 308-6-3 was paid. At Gorumahisani (in the Mayurbhanj State), during 1944, there were 474 minor accidents and 6 serious ones. Compensation was paid in 3 cases only. One serious accident turned to be fatal later on and for that Rs. 500 was paid. In cases of two

other accidents, Rs. 68-2-3 and Rs. 70 were paid in compensation. At the Gua Ore Mines (Indian Iron and Steel Co.) there were 22 accidents during 1943 and compensation was paid in all cases amounting to Rs. 198-5-3.

There are no agencies to render legal or other assistance to workers in securing compensation, and there is seldom any complaint referred by the workmen to the Commissioner for Workmen's Compensation. They generally accept whatever has been paid by the employers. Workers are aware of their rights under the Act, but in view of their unequal strength, they are not prepared to press their claims too far. Broadly speaking the bigger companies observed the provisions of law, though there is reason to believe that minor injuries very often are ignored by them. As regards the smaller mines and contractors the position is less certain. The bigger companies often intervene on behalf of the workers if contractors fail to provide compensation. Employers are not in the habit of insuring against accidents with private insurance companies and prefer to meet the claims themselves. Compulsory insurance of some kind or other is very badly needed in the industry so as to take the matter outside the pale of the employer's mere discretion. As regards occupational diseases, there has hardly been any case in which there was either compensation or complaint. According to the Medical Officer at Gorumahisani, there has been no case of Silicosis or Miner's Nystagmus in the locality, although there have been some cases of Cellulitis, especially in the rainy seasons, due to wounds being exposed to rain water or mud. But, in any case, the Workmen's Compensation Act, although it applies to mines, does not make any mention of any these diseases.

Maternity Benefit Act.—In the TISCO mines, Maternity Benefit was provided even before the Indian Mines Maternity Benefit Act came into force (1941). It is now provided strictly in accordance with the Act, not only at mines in British India but also at all other TISCO mines in the Indian States whether such States have adopted the Mines Maternity Benefit Act or not. In the Indian Iron and Steel Co.'s mine at Gua also Maternity Benefit was provided before the Act came into force. In 1943, the Mayurbhanj State promulgated its Maternity Benefit Order and Rules, and these are applicable to mines situated in the State. The women workers appear to be aware of their rights under the Act and Order, and experience little difficulty in obtaining benefit, except that naturally they cannot always estimate the four weeks prior to confinement very accurately.

Payment is made at each mine on the certificate of the local medical officer and medical treatment is provided free of charge at the mines hospitals.

Chapter III.—Summary and Conclusions.

Introductory.—The Iron Ore Mining industry in India is mainly located in Bihar and the adjoining States of Mayurbhanj and Keonjhar as also in the Mysore State in the Kemmangundi Hills. Our survey was conducted in the former areas, mainly at three places, viz., Noamundi, Gorumahisani and Gua, although information was also supplemented from other sources. The Noamundi and Gorumahisani mines belong to the Tata Iron and Steel Co. and the Gua mines belong to the Indian Iron and Steel Co. The iron ore mines in this area are some of the richest in the world and both in quantity and in quality

the ores produced are thought to exceed any other ores of the same kind, including the great American occurrences of Minnesota, Wisconsin and Michigan. With the availability of coal supplies in the neighbourhood in Bihar and of cheap labour drawn from Santhal Parghanas the Ranchi, Bilaspur and Chhatisgarh Districts and the Mayurbhanj and other States, the industry, as raw-material supplying industry for iron and steel, has been on a very sound footing and promises to provide steady employment to miners. Temporarily, owing to present war-time conditions, however, certain difficulties have arisen, such as lack of adequate transport facilities and exodus of labour from the mining areas to Assam in response to war demand.

Employment.—The total employment in the iron ore mining industry in the whole of India is estimated at 16,000 on the average, of which Bihar alone accounts for nearly 10,000. At the three centres investigated, the employment was 9,211 in December 1944, whereas it was 9,530 during August 1939. Of these, the piece-rate workers seem to be a predominant element, being 6,787 in 1939 and 5,419 in 1944. Likewise, contractors' labour is predominant, being 6,644 in 1939 and 4,981 in 1944. Although contractors' labour is showing a decline, it is still a serious problem. In spite of precautions taken by the Companies, there is reason to believe that the workers employed by contractors are not fully secured against exploitation. Although the contract system helps the Companies in that it implies definite cost accounting, it has led to serious abuses of which underpayment of wages, miserable housing, sweating conditions of work, disregard of the provisions of labour laws, are the chief. Generally speaking, *sarkari* or Company labour is very much better off in all these respects. There is, therefore, no doubt that legal abolition of the contract system would make the lot of the workers better. The labour turnover in the industry appears to be very high as also absenteeism, for which the usual causes are obviously responsible. Both appear to be high at the time of harvests and during the monsoons when the worker either makes an exodus to the land or stays away for reasons of ill-health. The leave rules of the Companies, especially of the TISCO, would seem to be quite satisfactory. Reduction of labour turnover and absenteeism can only be brought about by improving the general conditions of labour, raising wages, providing better housing, etc.

Wages and Earnings.—There are two main categories of workers, Cutters and Loaders, while Drillers may be regarded as a sub-category of Cutters. Cutters are paid on the basis of four different systems, the Box System, the Tub Rates, the Cubic Foot Rate, and the Tonnage Rate. Whichever system is adopted, the theoretical wage probably comes to the same thing ; but weighment and measurement are often fraudulent, and workers seemed to prefer the Box System as simple to remember. The rates differ for soft ore and hard ore, but as the work involved is also variable the final result is almost identical for both types of ore. The cutters' earnings, including dearness allowance, vary between Re. 0-13-6 to Re. 1-0-0 per day. As regards the loaders, these are mainly paid on a daily-rate basis. Their wages vary between 5 as. and 8 as., differential rates being paid to male and female loaders. Driller, a sub-category of cutters, are paid by the piece, according to the nature of ore, hard or soft. Dearness allowances, on a sliding scale basis, are paid by the TISCO, while other concerns pay extra food allowance at a flat rate. Apart from dearness allowances, TISCO also pays profit-sharing and attendance bonuses. The Payment of Wages Act does not apply to these as to other mines, and hence the workers are not sufficiently protected especially those working under contractors.

Working Conditions.—Normal hours of work for company labour are 8 every day, but in the case of contract labour the figure may be as high as 12 hours. There are different shifts for different types of workers, and night shifts are worked only rarely when there is pressure of work. The main defect so far as surroundings are concerned is that no shelters worth the name are provided to the miners for rest and meals.

Housing and Welfare Activities.—Housing has been provided by the Companies as well as by the contractors. At Gua, 100 per cent. of the workers are housed by the Company, at Gorumahisani, 25 per cent. of company labour and 90 per cent. of contract labour is housed ; at Noamundi, 49 per cent. of company labour and a smaller proportion of the contract labour are accommodated. The housing provided by the companies is mostly satisfactory, but that provided by contractors is poor. Some of the quarters may be described as living dens unfit for human habitation. The employers stated that they had big programme of housing but that they were held up by the war. All the big Companies have their dispensaries and hospitals and treatment there is free. School facilities are also adequate but the medium of instruction (which is Hindi) seems to be resented. There are no other welfare activities, except occasional sports for the workmen, in the industry.

Working of the Various Acts.—The Indian Mines Act applies to mines in British India ; in the Mayurbhanj State, there is the Mayurbhanj State Mines Order, 1937. Company or *sarkari* labour generally fared better than contract labour, so far as the labour provisions of the Act and Order are concerned. In particular, employment of children under 15, and of adolescents (between 15 and 17) without doctor's certificate, in contravention of the law is frequent ; no shelters are provided for miners ; adequate supply of fresh drinking water is not available ; and no abstract of the Mines Act are exhibited in vernacular languages in prominent places. Inspection of the mines leaves much to be desired. As regards the Workmen's Compensation Act, although the Companies observe the provisions, the same cannot be said of the contractors. The accidents were not always reported and compensation was paid often at a rate lower than that prescribed. Compulsory insurance of some kind is badly needed here. The Indian Mines Maternity Benefit Act came into force in this industry only recently and it seems to be working fairly well. The Mayurbhanj State has its own Orders corresponding to workmen's compensation and maternity benefit, and these are being enforced. The TISCO stated that in their mines, wherever situated they might be, they had observed the British Law even before the State passed its Orders.

B. P. ADARKAR.

Simla, the 11th May 1945.

APPENDIX I.

Scales of Pay at the TISCO Mines.

	Present Scale.	Revised Scale.
Surveyor	Rs. 90—10—150 .. .	Rs. 100—10—150—E.B.—10—200.

Outdoor Staff.

Traffic Inspector	Rs. 75—5—100—Bar—5—125.
Loading Assistants	Re. 1 to Rs. 1-8-0 P.D.
Permanent Way Inspector ..	Rs. 70—5—100—Bar—5—120.
Senior Permanent Way Inspector	Rs. 120—10—150.
Head Line Mate	Rs. 1-2-0 to Rs. 1-8-0 P.D.
Mines Foreman	Rs. 75—5—100—Bar—5—125
Asst. Mines Foreman ..	Rs. 40—5—70.
Overseers	Rs. 65—5—90.
Sub-overseers	Rs. 35—5—60.
Tracers	Rs. 35—5—55.
Blasting Inspector ..	Rs. 55—5—80.
Asst. Blasting Inspector ..	Rs. 30—3—50.
Sanitary Overseer	Rs. 50—4—75.
Chemist	Rs. 90—5—120.
Head Sampler	Rs. 30—3—45.
Sampling Helpers	0-10-0 P.D.
Head Jamadar	Re. 1-0-0 P.D.
Chowkidar	0-8-0—0-2-0—0-12-0 P.D.
Chief Clerks	Rs. 110—5—130.
Senior Clerks	Rs. 85—5—100.
Stenographers	On probation Rs. 60. On confirmation Rs. 65—5—100.
Typists	On probation Rs. 40. On confirmation Rs. 46—3—55/2 years.
Clerks	On probation Rs. 35.
Junior Clerks	On confirmation Rs. 40—3—55/2 years.
Head Time-keepers	Rs. 75—5—100.
Time-keepers	On probation Rs. 30. On confirmation Rs. 35—3—50.

Mechanical Staff.

Shop Section.

Head fitter	Rs. 2-12-0 to Rs. 3-8-0 P.D.
Fitters (Min. 5 years' experience)	Rs. 1-6-0 to Rs. 2-8-0.
Fitter Helper—5 years' training—Annual Rates	As. 0-8-0, 0-10-0, 0-12-0, Re. 1-0-0, Rs. 1-4-0 P.D.
Boiler-Maker & Fitter ..	Rs. 1-8-0 to Rs. 3-0-0 P.D.
Machinist (Min. 5 years' experience)	Rs. 1-8-0 to Rs. 3-0-0 P.D.
Machinist Helper—5 years' training—Annual Rates	Rs. 0-8-0, 0-10-0, Re. 0-12-0, Re. 1-0-0, Re. 1-4-0 P.D.
Compressor Engine Driver ..	Rs. 1-7-0 P.D. (fixed salary).
Master Blacksmith (able to read drawings)	Rs. 2-2-0 to Rs. 3-0-0 P.D.
Blacksmith (5 years' experience)	Rs. 1-2-0 to Rs. 2-0-0.
Hammerman (5 years' training)	Re. 0-8-0 by 0-2-0 annually.
Moulder	Rs. 1-8-0 to Rs. 3-0-0 P.D.
Moulder Helpers	Re. 0-8-0 by 0-2-0 annually to Re. 1-0-0 P.D.

Electric.

Asst. Elec. Foreman (with diploma)	Rs. 75—5—120.
Switchboard Operator (with diploma)	Rs. 45—5—70.
Switchboard Operator (With practical training) ..	Rs. 1-8-0 to Rs. 2-0-0 P.D.
Welder	Rs. 1-4-0 to Rs. 2-8-0 P.D.
Elec. Head Fitter	Rs. 2-12-0 to Rs. 3-8-0 P.D.
Elec. Fitters	Rs. 1-6-0 to Rs. 2-8-0 P.D.
Elec. Fitter Helpers (5 years' training)—Annual rates. ..	Re. 0-8-0, 0-10-0, Re. 0-12-0, Re. 1.
Carpenters	Same as Blacksmiths.
Carpenter Helpers	Same as Hammermen.
Masons	Rs. 1-2-0 to Rs. 1-8-0 P.D.
Mason Helpers	Re. 0-8-0 — 0-2-0 to Re. 1-0-0 P.D.
Plumbers & Pipe Fitters ..	Rs. 1-8-0 to Rs. 2-8-0 P.D.

Mechanical Running Section.

Loco Driver (With knowledge of fitting)	Rs. 1-2-0 to Rs. 2-0-0 P.D.
Fireman	Re. 0-8-0 —0-2-0 annually to Re. 1-0-0 P.D.
After 5 years, firemen will be promoted to Drivers as vacancies occur.	
Boiler Driver	Rs. 1-2-0 to Rs. 1-8-0 P.D.
Drum Drivers already engaged. Unsuitable transfer.	If suitable—bring up by 0-2-0. Annual increments to the scale.
Drum Drivers—New appointments	Re. 1-0-0 to Rs. 1-8-0 P.D.
Khalasis	Re. 1-0-0 to Rs. 2-0-0 P.D.
Water Works Inspector ..	Rs. 30—3—45.

Medical.

Medical Officers	Rs. 80—10—180—10/2—200 Efficiency bars at Rs. 120 & Rs. 170 first increment after 2 years' satisfactory service.
Nurses	Rs. 40—5—70.
Compounders	Rs. 30—5—70.
Dressers	Re. 1-0-0 to Rs. 1-4-0 P. D.

Mates

Loading Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Store Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Line Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Mining Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Survey Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Blasting Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Sanitary Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Road Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Sweeper Mates	Re. 0-8-0 to Re. 1-0-0 P.D.
Pointsmen	Re. 0-6-0 to Re. 0-0-6—Re. 0-8-6 per day.
To be selected from coolies having 2 years' experience.	
Coolies	As. 0-5-0—0-0-6—As. 0-7-6 P.D.
Rezas	As. 0-4-0—0-0-3—As. 0-5-6

APPENDIX II.

Hours of Work in TISCO Mines.

A.—Gorumahisani.

	Working hours.	*Interval.*
Office	8-00 A.M. to 1-00 P.M. 2-30 P.M. to 5-30 P.M.	1-00 P.M. to 2-30 P.M.
Store	Do.	Do.
S. & E. Office	Do.	Do.
Mechanical Office	Do.	Do.
Mines Foreman, Asst. Mines Foreman, P. W. I. & Mech. Foreman	Do.	Do.
Workshop	8-00 A.M. to 1-00 P.M. 2-00 P.M. to 5-00 P.M.	1-00 P.M. to 2-00 P.M.
P. W. Department	Do.	Do.
S. & E. Department ..	Do.	Do.
Mining Department	Do.	Do.
Chemical Laboratory ..	Do.	Do.
Medical & Sanitation (except staff concerned with hospital)	Do.	Do.
Hospital	8-00 A.M. to 12-00 noon 4-00 P.M. to 6-00 P.M.	12-00 noon to 4-00 P.M.
Traffic	8-00 A.M. to 4-00 P.M. (One shift—applicable to all staff concerned with loading.) ½ hour for rest and meals.	
Blasting	9-00 A.M. to 12-00 noon 3-00 P.M. to 8-00 P.M.	12-00 noon to 3-00 P.M.
Power House	6-00 P.M. to 11-00 P.M.	

B.—Noamundi Iron Mine.

(With effect from the 1st August 1944.)

Office	8 A.M. to 1 P.M. 3 P.M. to 6 P.M.	.. .. 1 P.M. to 3 P.M.
General Relays.		
First Relay	8 A.M. to 1 P.M. 2 P.M. to 5 P.M.	1 P.M. to 2 P.M.
Second Relay	5 P.M. to 11 P.M. 12 P.M. to 2 A.M.	11 P.M. to 12 P.M.
Third Relay	2 A.M. to 8 A.M. ..	.. *Nil.*

Mines Foreman, P. W. Inspector, Traffic Inspector, Workshop (Office section), Survey and Engineering (Office Section), Sanitary Overseer and Anti-Malaria Gang will follow *Office Hours.*

P. W. Department, Workshop and Survey and Engineering (Labour Section only) will follow *General Relay.*

Winding Enginemen, Engine, and Power House Attendants, Boiler Fireman, Trammers, Persons working in Tipping and Crushing will work in 3 continuous shifts of 8 hours each, first shift beginning at A.M.

Chowkidars on duty with gun will work at a stretch of 4 hours within the above relays.

	Working hours.	*Intervals*
Medical officer, Compounder, Nurse, & Dresser ..	8 A.M. to 12 Noon. .. 4 P.M. to 6 P.M.	.. 12 Noon to 4 P.M.
Loading Staff	9 A.M. to 1 P.M. .. 2 P.M. to 6 P.M.	.. 1 P.M. to 2 P.M.
Mining Staff	8 A.M. to 1 P.M. .. 2 P.M. to 5 P.M.	.. 1 P.M. to 2 P.M.
Blasting Staff	9 A.M. to 12 Noon .. 3 P.M. to 8 P.M.	.. 12 Noon to 3 P.M.
Sanitary Gang	7 A.M. to 12 Noon .. 3 P.M. to 6 P.M.	.. 12 Noon to 3 P.M.
Filter Plant	7 A.M. to 1 P.M. .. 4 P.M. to 6 P.M.	.. 1 P.M. to 4 P.M.
Dam Guard	9 A.M. to 5 P.M.	.....
Camp Night Chowkidar ..	9 P.M. to 5 A.M. ..	.....
Telephone Attendant ..	8 A.M. to 12 Noon .. 4 P.M. to 8 P.M.	.. 12 Noon to 4 P.M.
Do.	12 Noon to 4 P.M. .. 8 P.M. to 12 P.M.	.. 4 P.M. to 8 P.M.
Do.	12 P.M. to 4 A.M. .. 5 A.M. to 8 A.M.	.. 4 A.M. to 5 A.M.

C.—Indian Iron and Steel Co.'s Mines at Gua.

Single and double shifts are worked, with 8 hours in each shift. The first shift is from 7-30 a.m. to 5 p.m., with 1½ hours rest interval, with a total spreadover of 9½ hours. The double (Ropeway) Shift is 7 a.m. to 4 p.m. with one hour's rest, and 4 p.m. to 1 a.m. with one hour's rest and a total spreadover of 9 hours in each case.

APPENDIX III.

Main Types of Houses Constructed by the TISCO.

Type and number of houses provided in each Building.	Average room space etc.	Average number of persons in each.
3 Blocks—4A, 4B and 4C—each block consisting of 8 units.	Each unit consisting of front verandah 10′ × 6′, one bed room 10′×10′, kitchen 6′×5′, back verandah 6′×4′, latrine 3′-6″×3′-6″, cemented yard and compound wall.	Employee with wife and one or two children.
One Block—type 4D—consisting of 4 units.	Each unit consisting of front verandah 20′-6″×6′, two bed-rooms 10′×10′, platform in back attached to bed room, kitchen 8′-6″×7′, bath room 7′-6″×4′, latrine 3′-6″×3′-6″ with cemented yard and compound wall.	Ditto.
One Block—type 4E—consisting of 8 units.	Each unit consisting of front verandah 10′×6′, two, bed rooms one 10′×10′ and another 10′×8′, back verandah 7′×4′-3″, kitchen 5′-6″×5′-4″, latrine 3′-6″×3′-4″ with cemented yard and compound wall.	Ditto.
One Block—type 4F—each block consisting of 4 units.	Each unit consisting of front verandah 20′-6″×6′, back verandah 20′×4′-3″, two bed rooms 10′×10′, kitchen 7′×6′, store room 6′-6″×6′, latrine 4′×3′, bath room 7′-9″×5′ with cemented yard and compound wall.	Ditto.
Two blocks—type 5A and 5B—each block consisting of 4 units.	Each unit consisting of front and back verandah 11′-3″ × 5′-6″, two bed rooms 12′×11′-3″, kitchen 7′×7′, store room and servants' room each 8′×7′, latrine 3′-6″×3′, bath room, cemented yard and compound wall.	Ditto.

Type and number of houses provided in each Building.	Average room space, etc.	Average number of persons in each.
3 Blocks—type 5C, 5D and 5E 5C has 3 units. 5D has 4 units. 5E has 2 units.	Each unit consisting of front verandah 11′×10′, back verandah 11′×5′-6″, two bed rooms 12′×11′, kitchen 7′×7′, store room and servants' room each 8′×7′, latrine 3′-6″×3′, bath room, cemented yard and compound wall.	Employee with wife and one or two children.
3 Blocks—type 12A, 12E and 12F each consisting of 8 units.	Each unit consisting of front common verandah 88′-9″ × 5′-4″, one bed room 10′×10′, kitchen 8′×6′.	One in each unit.
3 Blocks—type 12B, 12C and 12D.	Each unit consisting of one bed room 10′×10′, kitchen 10′×8′-6″, common verandah in the front 88′-9″×7′.	Ditto.
4 Blocks Chowkidar line, 3 blocks of 8 units each and one block of 4 units.	Common verandah in front 88′-9″×7′-3″, each unit consisting of one bed room 10′×10′ kitchen 6′-2½″×5′, back verandah 7′-3″×4′-2″.	2 or 3 persons.
Teachers' Quarters one block of two units.	Each unit consisting of front verandah 10′×6′, one bed room 10′×10′, kitchen 7′×5′, latrine 3′×3′.	One in each unit.
Coolie lines 15 blocks—each block of 8 units.	Each unit consisting of front verndah 10′×6′, one bed room 10′×10′, back verandah 6′×5′, kitchen made with screen wall 5′×5′.	2/3 persons.
Coolie lines 2 blocks—8 units each.	Description same as 15 bks. coolie lines but under construction.	Ditto.
Coolie lines 1 Block of 8 units.	Front common verandah for the block 90′×6′, each unit consisting of one bed room.	Ditto.
Coolie lines—6 blocks each block of 8 units.	One unit consisting of one room each. *N.B.* These are to be remodelled with R.C. roof with addition of vera ndahs.	
Mess Building 2 blocks	Each block consisting of front verandah 20′-8″×7′-3″ one common room 13′×12′, 4 bed rooms of which two are 13′×12′ and the other two are 12′×8′-9″, kitchen 11′×9′, verandah for kitchen 11′×6′-7″, servant's room 7′-6″×7′, store room 7′×7′, bath room 7′×7′, 3 latrines 4′×4′ each.	3 in each room.
Senior A type—one block	Consisting of a front verandah 14′×9′, two bed rooms 14′×14′, one drawing room 15′×14′, one box room 8′×6′, one lavatory and bath room 8′×6′, kitchen 8′×8′, servant's room 8′×8′, outhouse verandah 19′-4″×5′-6″.	One small family.
Senior B Type—Two blocks.	Each block consisting of front verandah 12′-7″×6′, one drawing room 13′×13′, two bed rooms each 13′×13′, kitchen 9′×7′, store 7′×7′, servant's room 7′×7′, bath room 7′×6′, latrine 3′-6″×3′-6″.	One small family in each block.
Temporary kutcha huttings—8 blocks.	Each unit consisting of one room 10′×10′ and one small.	

Besides the above there are following Bungalows at Nolamundi :—

(1) Director's Bungalow with outhouses.

(2) Superintendent's Bungalow with outhouses.

(3) Manager's Bungalow with outhouses.

(4) Senior Medical Officer's Bungalow with outhouses.

(5) Dak Bungalow with outhouses.

Details of Contractor's Coolie Huttings.

Hutting No. 1 (Semi-pucca) ..	10 Blocks	200 rooms.
„ No. 2 „ ..	17 „	340 „
„ No. 5 „ ..	18 „	360 „
		900 „

Jo-Jo Huttings—11 Blocks kutcha huttings 105 rooms with Bhogra walls and C. I. sheet roofing.

Hutting No. 3—6 Blocks, 55 rooms with Bhogra walls and C. I. sheet roofing.

Hutting No. 3A—Bazar Huttings 50 units with Bhogra walls and C. I. sheet roofing.

Hutting No. 4—Baleswar Huttings 23 units with Bhogra walls and straw thatching.

Hutting No. 4A—Temporary 137 rooms.

Hutting No. 6—Girija Huttings 5 blocks with Bhogra walls and C. I. sheet roofing.

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LABOUR INVESTIGATION COMMITTEE
GOVERNMENT OF INDIA

REPORT

ON

AN ENQUIRY INTO CONDITIONS OF LABOUR IN THE JUTE MILL INDUSTRY IN INDIA

Cx. /2. 5

BY

S. R. DESHPANDE

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CONTENTS.

	Pages.
LIST OF TABLES	(i)
LIST OF APPENDICES	(ii)
PREFACE	(iii)
ACKNOWLEDGMENTS	(iv)
PART I.	
CHAPTER I.—INTRODUCTION	1
PART II.	
CHAPTER II.—BENGAL	6
Regional Survey of Labour Conditions—	
Employment, Working Conditions, ...	6
Hours of Work and Shifts, ...	11
Wages and Earnings, Housing, ...	15
Welfare Work and Trade Unions.	32
CHAPTER III.—UNITED PROVINCES—Cawnpore	36
CHAPTER IV.—MADRAS PRESIDENCY	40
A.—Chitavalsah	40
B.—Nellimarla.	44
PART III.	
CHAPTER V.—SUMMARY AND CONCLUSIONS	51
APPENDICES	55
SELECT BIBLIOGRAPHY	97

LIST OF TABLES.

I. Table showing the progress of the Jute Mill Industry from 1855 to 1944.

II. Table showing the profits made by the principal Companies in the Jute Mill Industry during the period 1928 to 1942.

III. Table showing the number of Jute Mills in Bengal and the number of persons employed in them from 1912 to 1944.

IV. Table showing the percentage of female workers to the total number of persons employed in the Jute Mills in Bengal, from 1931 to 1944.

V. Table showing the percentage of contract labour to total labour employed in 20 of the Units surveyed.

VI. Table showing the length of service of operatives in 19 of the Jute Mills selected for *ad hoc* survey.

VI(a). Table showing the number of accidents caused by Jute Mill Machinery.

VII. Frequency table showing the distribution of workers in the weekly basic wage groups in 35 Jute Mills covered by the Wage Census in Bengal.

VIII. Frequency table showing the distribution of workers in the weekly net earnings groups in 35 Jute Mills covered by the Wage Census in Bengal.

IX. Statement showing the quantity of foodstuffs issued and the concession rates charged at the Mills Ration Shops.

X. Table showing the range of variations in the rates charged for provisions by the different mills and the average loss to the mills per worker per week.

XI. Table showing the percentage of workers housed in 37 mills that have supplied information to the Indian Jute Mills Association.

XII. Table showing the distribution of housing accommodation supplied by employers according to floor space.

XIII. Table showing the number of Trade Unions with their membership and the names of Organisations to which they are affiliated.

XIV. Table showing the number of Trade Unions and their membership from 1928 onwards.

XV. Table showing the number of strikes and man-hours lost, from 1938 onwards.

XVI. Frequency table showing the distribution of workers in the basic wages and earnings groups in the two Jute Mills covered by the Wage Census in Cawnpore, United Provinces.

XVII. Table showing weighted averages of wages and earnings in selected occupations in March 1945, in the two Jute Mills covered by the Wage Census in Cawnpore.

XVIII. Table showing the scale of Dearness Allowances in the two Jute Mills in Cawnpore covered by the survey.

XIX. Table showing wages and earnings of workers in selected Occupations in January 1944, in the Jute Mill at Chitavalsah, Vizagapatam district, Madras Presidency.

XX. Table showing wages and earnings of workers in selected occupations in January 1944, in the Jute Mill in Nellimarla.

XXI. Frequency table showing the distribution of workers in the basic wages and earnings groups in four Jute Mills covered by the Wage Census in Madras Presidency (South India).

XXII Table showing the weighted averages of wages and earnings of workers in selected occupations in the four Jute Mills in Madras Presidency, covered by the Wage Census.

XXIII. Frequency Table showing the Wage Position in the different Centres of the Jute Mill Industry in India.

LIST OF APPENDICES.

I. Statement containing details of the Working hours Agreements among the Jute Mills, from 1872 onwards.

II Note on the processes involved in the manufacture of jute yarn and goods.

III. Specimen of a Service Card maintained by the Jute Mills in Bengal.

IV. Copy of the draft Rules regulating conditions of service of workers in Jute Mills in Bengal, under consideration of the Indian Jute Mills Association.

V. Copy of the Wage Census form used, with suitable modifications, for the collection of data relating to wages and earnings of workers in Jute Mills in Bengal.

VI. Tables showing wages and earnings in selected occupations in 35 Jute Mills covered by the Wage Census in Bengal.

VII. Table showing the range of potential earnings reduced to an hourly basis in 70 Jute Mills in Bengal.

VIII. Note regarding Labour Welfare activities carried out by the Government of Bengal.

IX. Table showing wages and earnings in selected occupations in the two jute mills covered by the Wage Census in Cawnpore, United Provinces.

X. Table showing wages and earnings in selected occupations in four Jute Mills in the Madras Presidency covered by the Wage Census.

PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of a machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L-4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each. The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry.* (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making, Cigar and Cigarette. (29) Mica Splitting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour. (37) Central P. W. D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature, no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information on the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed, and (b) supplementary and special questionnaires in respect of certain industries, such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton, woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst Employers' and Workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North-West Frontier Province where none of the Industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint its own Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) the Committee, as a whole, to study each industry, (ii) the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port Authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

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S. R. DESHPANDE
AHMAD MUKHTAR } *Members.*
B. P. ADARKAR

TEJA SINGH SAHNI,
Secretary.

ACKNOWLEDGMENTS.

As pointed out in the body of the Report, since the Jute Mill Industry in India has not been subjected to any public enquiries, there is very little literature available in regard to labour conditions in the industry. Most of the material utilized for this Report had, therefore, to be collected on the spot. The Indian Jute Mills Association has, however, furnished detailed replies to the Committee's Questionnaire which I have found of considerable assistance in the preparation of this Report. In regard to Bengal, most of the material was collected by the Committee's staff ably assisted by Mr. S. R. Zachariah, Assistant Commissioner of Labour, Bengal. Mr. Zachariah also supplied me with full notes on the material collected in Bengal. He also accompanied me during my visits to Jute Mills, workers' quarters, etc., and was of the greatest possible assistance in supplying me with the necessary background on the various labour problems relating to Jute mill workers in Bengal. The material for the Jute mills in South India was collected by Mr. S. R. Sundaram, a Supervisor of the Committee, who also supplied me with full notes on subjects dealing with conditions of labour in South Indian jute mills. Information for Cawnpore was obtained by one of the Supervisors of the Committee and I have also received considerable assistance in obtaining further material from Mr. M. C. Pant, Labour Officer, Government of U. P. To all these my grateful thanks are due.

For some of the background material utilised for this Report I am indebted to Mr. K. D. Chatterjee, Superintendent of my office. Mr. S. R. Sundaram has assisted me greatly in the final preparation of the Report and, particularly, in the preparation of the final tables based on the Wage Census.

PART I.

CHAPTER I.—INTRODUCTION.

Historical and Economic Background.—The Jute Industry plays a very important part in the national economy of India, ranking, as it does, next to the cotton mill industry of the country from the point of view of the number of persons employed. The industry is located mainly in Bengal which has a virtual monopoly of the world's production of raw jute. Over two-thirds of the raw jute production in India is consumed by Indian jute mills. The number of persons employed in the industry was nearly 3 lakhs in 1943-44. In 1941-42 jute and jute manufactures accounted for nearly 50 per cent. of the value of the export trade of Bengal and about 25 per cent. of the value of the export trade of British India.* The capital invested in the industry was about 24 crores of rupees in 1939-40.** The industry is mainly in the hands of British managements although in recent years there has been a tendency on the part of Indian industrialists to own jute mills.

The manufacture of cloth from the jute plant is a very ancient Indian industry and its mention is to be found as *Patta* in the religious code of Manu. The use of the fibre was not confined merely to the making of cloth, but paper was also manufactured out of this fibre. There is the authority of Sir George Watt for the statement that jute cloth was used in India for clothing purposes by the poorer classes a century ago.†

As a result of the mechanical manufacture of the jute fibre the handloom industry in India for the making of jute cloth is practically extinct and now produces only rope, twine, etc., for domestic and village requirements on a small scale.

The manufacture of jute cloth by the mechanical process dates back to the year 1848. The United States of America, and the continental countries in Europe started such manufacture during the 37 years 1848-1885, while the first jute mill was established in India in 1855 at Serampore. It is understood that there are about 49,000 looms in jute mills in all countries outside India, as against about 65,000 in this country‡. From 1900 to 1909, there was very great increase in the productive capacity of the Indian Jute Mill Industry and by 1909, there were 38 companies with over 30,000 looms. In the post-war period, there was again a rapid increase and by 1927, the loom strength reached the 50,000 mark. This was followed by a period of depression between 1930-45. By 1939, the total number of jute mills in the country was 108, including the mill in the French Settlement of Chandranagore, the number of looms being over 65,000.

The following summary Table shows the progress of the industry from 1855 to 1944§.

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*Review of the Trade of India in 1941-42, page 127.

**Statistical Abstract for British India, 1930-31 to 1939-40.

†Jute and Substitutes by N. C. Choudhury, pages 156-57.

‡Our Economic Problem, by P. A. Wadia and K. T. Merchant, p. 305.

§Statistics compiled from "The Romance of Jute," "Our Economic Problem" and Statistics of Factories published by the Government of India.

TABLE I.

	Number of mills.	Number of spindles.	Number of looms.	Average daily number of persons employed.
1855	1	..	..	..
1895	21	2,03,522	9,700	5,710
1900-09	59	6,77,070	30,685	1,84,560
1914-15 to 1918-19	73	8,21,000	39,700	..
1919-20	76	8,56,300	41,000	2,86,941
1930	98	11,04,400	53,900	3,46,765
1931	100	12,25,000	62,000	3,36,356
1932	103	12,21,000	64,000	2,76,530
1936	104	12,79,000	64,000	2,77,986
1937	104	13,00,000	65,000	2,89,136
1938	105	13,38,000	67,000	3,05,785
1939	108	13,50,000	68,000	3,02,285
1940	110	13,70,000	66,000	3,07,000(a)
1944	112	15,34,060	68,542	2,89,000(a)

Location and Extent.—The Industry is mostly concentrated in Bengal, the other centres of the industry being the United Provinces, Bihar, South India and the Eastern States Agency. The mills outside Bengal were established after 1919. As will be seen from the above table, the total number of jute mills in India in 1944 was 112 out of which 101 were in Bengal (including one mill in the French Settlements), 3 in United Provinces, 3 in Bihar, 4 in Madras Presidency and 1 in the Eastern States Agency. As compared to the production of the Bengal mills and the number of persons employed in them, the other centres are comparatively insignificant. Thus, out of about 2,89,000 employed in the industry in 1944, not more than 22,000 or 7.6 per cent. of the total were employed in centres outside Bengal.

The whole of the jute mill area in Bengal is located on either side of the river Hooghly, about 30 miles north and south of Howrah Bridge, from Bansbaria to the north and Budge Budge to the South. Although on both sides of the river, jute mills are to be found at frequent intervals, there are certain areas in which one finds considerable concentrations. For instance, the following are some of the areas with high concentration of jute mills in them.

Jagaddal, Kankinara, Shyamnagar, Naihati, Titagarh, Ghusuri and Budge Budge.

Organization of the Industry.—The Jute Industry is perhaps the only industry in the country which has almost from its inception made efforts to organise itself in order to eliminate wasteful competition. In the early stages of the industry efforts were made without success to formulate schemes of regulation of production and of the fixation of prices. On the 7th July 1884, however, the Indian Jute Manufacturers' Association was established with a membership of 10, with the following objects :—

"to encourage and to secure united feeling and action,
to collect and classify facts and statistics,
to open new markets,
to fix points of custom,
to work on one form of contract,
to obtain the removal of grievances,
to arbitrate on matters of dispute,

(a) Approximate.

to communicate with public authorities or kindred associations, and generally to promote and protect the interests of those engaged in the industry in all matters relating to it, especially in matters touching the interests of the members ".

The Association decided two years later to come to an agreement for the curtailment of production. This continued up to the year 1891, during which period the mills worked sometimes four days per week, sometimes nine days a fortnight and sometimes five days per week. In addition to this, 10 per cent. of the sack looms were closed down for a short period in 1890. In 1902, the name of the Association was altered to ' Indian Jute Mills Association ' under which name it exists to this day. Appendix I contains the details of the various agreements reached by the Association from 1872 onwards for restricting the hours of work in order to regulate production. It will be seen that when there was demand for the manufactures of the mills, the Association allowed as much as 72 hours' working per week and when times were bad, this was reduced to as low a figure as 40 hours per week, as was the case during the period July to September 1939. Till the year 1939, however, the Association was not the close-knit body that it is today. In that year, in order to regulate production and eliminate competition, its members in Bengal and outside entered into a voluntary agreement relating to working hours for the adjustment of output to demand and according to the Review of Trade,* this " agreement has placed the industry on a more stable foundation than any legislative measure could have ever done."

Out of the 112 jute mills in India, 103 are members of the Association. Of these, 97 are in Bengal and the rest outside Bengal.

The total loomage in the mills attached to the Association was in 1944, 65,386, of which 42,265 were hessian and 23,121 sacking. Thus, out of the total loomage in India, 95 per cent. is under the control of the Association. The Association has a membership not only in Bengal but it also controls 1,711 looms outside Bengal. Only 4 factories in Bengal with 1,846 looms are not members of the Association.

In the year 1944, out of 65,386 looms belonging to the member-mills of the Association, 53,729 or 82 per cent. of the total were working and 9,657 or 18 per cent. were not working.

Scope and method of enquiry.—For purposes of the present enquiry 26 jute mills in and around Calcutta, 2 in South India at Nellimarla and Chittavalsah in Vizagapatam district, Madras Presidency and one in Cawnpore were surveyed. There are only 3 jute mills in Bihar employing about 5,000 persons. As this is a small centre of the industry, no information was collected from it. In selecting the samples of the Units to be surveyed in Bengal, the following criteria were adopted :—

(1) As it was reported that conditions of service vary in mills belonging to different managements, at least one mill belonging to every management in the industry was taken, and

(2) as conditions are likely to be different in regard to housing, wages, etc., according to the geographical location of the jute mills, care was taken to ensure that every important region of the industry was covered.

The managements of these factories were asked to send replies to the *ad hoc* questionnaire, and the officers of the Committee checked up the information on the spot by visits to the mills, the workers' dwellings, centres of welfare work, etc. In addition, some valuable information was obtained from the

*Review of the Trade of India in 1939-40, page 45.

replies of the Indian Jute Mills Association to the Committee's General Questionnaire.

A wage Census was conducted in 35 jute mills in Bengal covering all workers and in 2 mills in Cawnpore and 4 in South India on a sample basis. The census covered about 46 per cent. of the total labour force employed in the industry in India. In Jute Mills there is a multiplicity of small occupations and the results of the census have, therefore, been tabulated only for the numerically important occupations which account for about 70 per cent. of the total number of workers covered by the Census. The tables incorporating the results of the census will be found in the appropriate sections of this Report.

Processes.—The processes involved in the manufacture of jute are very similar to those to be found in the manufacture of cotton. A note on the processes involved will be found in Appendix II.

Effects of the War on the Industry.—Like many other industries in the country, the economic depression which started in 1929 also adversely affected the jute mill industry and it was not till the out-break of the second World War that the industry emerged from its severely depressed condition. As a matter of fact, the industry recorded a loss of over 84 lakhs of rupees in the year 1938. As pointed out in the Review of the Trade of India in 1939-40,* after a series of bad years, the jute industry " emerged on a high plane of prosperity in 1939 ". The first few months after the declaration of *War were crowded with events. There was a feverish demand for* all kinds of jute goods and the industry " had soon to take off the various restrictions one after another to make the productive machine to go ahead with the requisite supply..... Even an increase of working hours to 54 per week, which is the maximum allowed under the Factories Act, proved insufficient. The Government had, therefore, to relax certain provisions of the Factories Act, by issuing an Ordinance to permit the mills to increase the hours to 60 per week..... While the mills were trying to fulfil their commitments, the labour force had to be kept contented and the mills therefore decided to grant an increase of 10 per cent. of the wages with effect from 10th November 1939 "†.

In 1940, however, owing to fall in the price of jute manufactures, the Indian Jute Mills Association had to curtail the working hours from 60 to 54 per week. In the same year, the Government of Bengal also promulgated an ordinance fixing the minimum price of hessians and jute in the future market. In July 1940, the Government of Bengal and the mills entered into an agreement for fixing minimum prices. Under this agreement it was stipulated that the Committee of the Indian Jute Mills Association " should recommend to its members that they should pay certain minimum rates for jute and should not sell finished goods below certain minimum rates ".‡

The working hours were further curtailed from 54 to 45 and subsequently, the Committee decided to close the mills for one week in every four during September 1940 to January 1941. This arrangement was abandoned in February 1941, but was re-introduced in March 1941. From September 1941, the working hours were increased to 50 per week.

" The 54 hours of work with 10 per cent. sealed-looms, effective from 18th May 1942, governed mills, working at the start of 1943."§

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*Review of the Trade of India in 1939-40, page 45.

†Review of the Trade of India in 1939-40, page 46.

‡Review of the Trade of India in 1940-41, pages 44-45.

§Report of the Indian Jute Mills Association for 1943, page 62.

From 12th March 1943, the working hours were raised to 60 with all looms functioning. From May 1943, the working hours were again reduced to 54 per week with 10 per cent. of the looms sealed. In the middle of June 1943 the sealing was cancelled. All the Mills had again to close down for one week in the month from July to December 1943, owing to the critical coal situation.

The principal centre of the industry, namely, Bengal has been the scene of two distressing occurrences since the out-break of the War, which disorganised the industry to a considerable extent. The first was the bombing of Calcutta by the Japanese in 1942 and the second was the terrible Bengal famine of 1943. The effects of these on the labour employed in jute mills have been discussed in the appropriate sections of this Report.

The following table gives figures regarding the profits made by the industry during the period 1928 to 1942.

TABLE II.

Year.	No. of companies.	Profits (Rs. 000).
1928	47	7,69,30
1929	47	6,58,17
1930	47	2,91,50
1931	49	68,60
1932	50	1,02,84
1933	52	1,61,92
1934	53	2,86,70
1935	53	3,31,99
1936	53	2,15,70
1937	56	94,57
1938	59	84,14
1939	60	1,15,96
1940	60	4,16,48
1941	61	3,98,68
1942	61	4,22,84

It will be seen that as a result of the conditions created by the War the industry has not made abnormal profits like certain other industries in the country, and although the profit position is better than in the period of depression, it is not better than what it was prior to 1929. As stated by the Chairman of the Indian Jute Mills Association, one of the reasons for this is that although there has been great demand for jute manufactures, prices had to be kept at reasonable level as the prosperity depends to a large extent on the export markets and " after the outbreak of the War, the main consumers of the industry, namely, the Government of India, the United States of America and the other allied Governments, made it plain that the industry should not charge them any unduly high prices ".* It was stated that the percentage of profit earned from orders directly placed by Government was only 7½.

*Speech of Mr. W. A. M. Walker, Chairman of the Indian Jute Mills Association at its Annual General Meeting, published in " Commerce " dated 3rd March 1945, page 244.

PART II.

REGIONAL SURVEY OF LABOUR CONDITIONS.

CHAPTER II.—BENGAL.

Employment.—The following table shows the number of persons employed in jute mills in Bengal from 1912 to 1944 :—

TABLE III.

Table showing the number of jute mills in Bengal and the number of persons employed in them from 1912—1944.

Year.	No. of factories.	No. of adult males.	No. of adult females.	Total No. of adults.	No. of children.	Total No. of Average daily workers.
1912	61	145,389	31,329	176,718	23,007	199,725
1913	64	158,261	34,010	192,271	24,106	216,377
1914	69	167,858	36,800	204,658	25,969	230,627
1915	70	181,445	40,674	222,119	26,606	248,725
1916	70	191,036	42,145	133,181	27,606	260,787
1917	71	192,667	41,395	234,062	27,320	261,382
1918	72	199,977	43,278	243,255	27,709	270,964
1919	72	201,009	43,112	244,121	28,628	272,749
1920	73	207,255	44,545	251,800	28,521	280,321
1921	77	207,968	44,705	252,613	29,235	281,848
1922	80	239,660	49,257	288,917	28,267	317,184
1923	83	242,652	51,495	294,147	28,400	322,547
1924	85	252,107	54,801	306,908	27,823	334,731
1925	83	256,312	55,511	311,823	26,474	338,297
1926	86	253,935	52,827	306,762	20,785	327,547
1927	85	253,681	52,935	306,616	19,249	325,865
1928	86	260,342	53,678	314,020	17,879	331,899
1929	90	267,717	54,670	322,387	17,278	339,665
1930	91	264,417	52,114	316,531	11,646	328,177
1931	93	222,573	42,254	264,827	3,462	268,289
1932	94	212,505	40,294	252,799	1,515	254,314
1933	92	208,246	37,337	245,583	1,134	246,717
1934	93	213,894	36,932	250,826	915	251,741
1935	95	225,372	37,749	263,121	278	263,399
1936	94	233,481	38,261	271,742	4	271,746
1937	96	249,737	37,997	287,734	9	287,743
1938	97	242,342	36,683	279,025	9	279,034
1939	101	243,496	37,699	281,195	34	281,229
1940	101	248,046	36,640	284,686	34	284,720
1941	101	251,388	35,255	286,643	38	286,681
1942	101	252,799	35,083	287,882	32	287,920
1943	101	245,125	34,759	279,884	35	279,919
1944	101	231,121	36,005	267,126	67	267,193

It will be seen that since 1942 the total number of persons employed fell by about 20,000. The fall in the number employed revealed by the above table since the year 1942 need not, however, be taken to indicate that less employment was available in Jute Mills. It was really due to the scarcity of labour, particularly of the skilled type, such as spinners and weavers. At no time has there been a superfluity of spinners in the industry, but there has definitely been a shortage of these since 1942, after the bombing of Calcutta by enemy action. Even now, the position has not reverted to normal. Moreover, as a result of the opening up of many military depots in and around Calcutta, several former employees of Jute mills found jobs in these, where rates of wages were very much higher than those prevailing in the mills. For instance, the rate of daily wages paid by the military varied from Rs. 1-4-0 to Rs. 2-8-0 per day. It is understood that an arrangement was arrived at with the mili-

tary authorities whereby, the latter undertook to pay a maximum of Re. 1|- to Rs. 1-8-0 per day to their employees. This, however, had not much effect on the position of labour supply in the Jute Mill industry.

The position regarding shortage of labour in the industry was the worst in January 1943 when it amounted to about 13.3 per cent. of the total required. This was just after the air raids of Calcutta. The mills recruited more new workers and trained them. The turnover continued to be very high as the workers used to leave after working for a day or two. In certain departments, it takes time to train up the workers. For instance, a spinner requires about six months' training. The mills overcame this difficulty by promoting young men who had been working as shifters and had thus gained some knowledge of the work. In spite of this, production continued to fall in all departments and in some cases, discipline had to be relaxed in order to keep the men in.

The A. R. P. service which was organized also attracted a large reservoir of spinners and weavers who preferred the more attractive conditions of service in the A. R. P. to those obtaining in Jute mills.

Another War-time development in regard to employment has been the requisitioning of a number of jute mills by the military authorities. In order to maintain the production, whenever a mill was requisitioned, the procedure followed by the industry was to transfer the labour force to the nearest sister mill under the same Managing Agents, and these so called "Foster Mills" worked double shifts. In all, about 21 mills were requisitioned and the total number of looms affected was 14,192.

The table on prepage shows that about 20 years ago nearly 20,000 children were employed in the jute mills in Bengal. The employment of children has fallen substantially since the amendment of the Indian Factories Act in the year 1934 and the present position is that almost no children are employed. It is understood that during the acute shortage of labour experienced soon after the air raids in 1942, many of the mills were forced to employ child labour to some extent. This labour force is, however, gradually being replaced by adults and there is no tendency on the part of the mills to employ child labour in order to save wages because even when children were employed they were paid at rates which are the same as for adults.

So far as female labour is concerned, there has also been a drop in the employment of women but even now over 30,000 women find work in the jute mills in Bengal. The proportion of women employed to the total labour force comes to 13.4 per cent. The following table shows the percentage of women employed to the total from 1931 to 1944 :—

TABLE IV.

Year.	Percentage of female workers to total.
1931	15·75
1933	15·13
1935	14·33
1937	13·21
1939	13·41
1940	12·89
1942	12·18
1943	12·42
1944	13·48

The slight increase in the percentage of female labour employed in 1944, as compared to the year 1940, is accounted for by the prevailing shortage of labour at that time. Women are generally taken to fill up vacancies in the batching and preparing departments.

Soon after the air raids in Calcutta the Indian Jute Mills Association, in order to study the employment situation in the mills, undertook a statistical examination of the subject. Information was obtained from some 50 units. An analysis of this information made by the office of the Commissioner of Labour, Bengal, shows that nearly 25.91 per cent. of the workers are in the weaving department, the next largest department being spinning, accounting for 18.97 per cent. of the work-people. Preparing department accounts for 11.95 per cent., batching for 7.78 per cent. and Hemming and Sewing departments for 6.94 per cent. All other sections of a jute mill account for 28.45 per cent. of the total labour force.

Generally, the finishing, hemming and sewing departments are considered as one and termed the Finishing department. Workers in the batching department with the probable exception of selectors are nearly all unskilled men. Jute cutters may also be classified as unskilled. In the weaving department, with the exception of coolies and sweepers, all the workers can be regarded as skilled. The same applies to the spinning department where with the exception of coolies, sweepers and shifter boys, the rest are regarded as skilled. Shifters account for about 33 per cent. of the labour force in the spinning department.

In the initial stages of the industry in Bengal, the labour employed was obtained mostly from local sources. With the growth of the industry, however, and the spread of knowledge in the surrounding provinces that work was available in the factories in Bengal, persons from other Indian Provinces such as, the United Provinces, Central Provinces, Madras and Bihar began to seek work in jute mills and the position today is more or less the same. In Calcutta proper, however, there is a considerable amount of local labour working particularly in certain departments such as, spinning, machine-sewing, etc., and these are mostly Muslims. Both Bengali Hindus and Muslims seem reluctant to work in any of the unskilled occupations in jute mills. They are to be found mostly in the weaving department and generally come from 24-Parganas, from south of Calcutta and the districts surrounding Mograhat. This tendency showed a slight alteration during the recent famine in Bengal when thousands of people from the surrounding districts flocked to the jute mills for work, but generally refused any work in the mills which they considered below their dignity to do, such as the work of coolies, sweepers, etc. Generally, this type of work is done by Biharis and Bilaspuris, particularly those coming from Gaya.

The local labour from the 24-Parganas belongs mostly to the agricultural classes and generally leave for their villages during the week-ends.

Even in some centres of the cotton mill industry in India, such as Bombay, for instance, one finds a large number of persons belonging to a particular Province or community working in particular departments. In the Bengal jute mills, however, this tendency is most pronounced. For instance, the United Provinces provide a large supply of weavers, while in the batching department of the mills, Oriyas and Biharis are usually to be found. The Softener feeders are mostly chamars from Bihar, Bilaspur, etc. Heavy work in mills, such as the lifting of bales, etc., is generally done by men from Gorakpur and Gaya. The Madrasis are to be found in the preparing department of most of the jute mills in Bengal.

Women are generally employed in the batching department as teasers and in the preparing department as feeders and receivers on the Breaker and finishing cards and on drawing machines and as roving feeders. They form a high percentage of hand-sewers in the finishing department. Women workers do not seem to take to occupations, such as spinning and weaving, because, during the acute shortage of labour after the bombing of Calcutta, they were tried in these occupations but were found unsuitable.

There is very little contract labour in the jute mills in Bengal. The following table based on information obtained from 20 units shows the percentage of contract labour to the total labour force employed.

TABLE V.

	1939.		1944.	
	No. of workers.	% to total.	No. of workers.	% to total.
Employed and paid directly	74,710	97·99	78,691	98·33
Employed and paid through contractors	786	1·03	988	1·23
Employed through contractors but paid directly ..	746	0·98	349	0·44
Total ..	76,242	100·00	80,028	100·00

It will be seen that 1.67 per cent. of the labour force only is employed through contractors, although 0.44 per cent. of this is paid by the employers themselves. Thus, only 1.23 per cent. of the labour force is employed and paid by contractors. The one department in which contract labour is to be found is the raw jute handling department where bales of jute after being unloaded on jetties and sidings are stored in the godowns. Contractors' men are also to be found in some of the mills for carrying the raw jute from the jute godowns to the batching department. It is reported that about 50 per cent. of the mills employ contractors' labour, although to a very small extent. The mills exercise little or no control over contractors' labour, although it is understood that such labour does not suffer from inferior conditions of work or wages as compared to labour directly employed.

Recruitment and Labour Bureau.—Most of the larger units have now appointed Labour Officers and at the time of the enquiry there were 35 such officers. These officers are placed in charge of a Labour Bureau through which recruitment of labour is made on the following lines :

A register is maintained known as the 'Budli' register in which the names of workers in search of employment are registered. These are mostly former employees of the mill who had left their jobs or over-stayed long leave or had been demoted to a 'budli' from a permanent post. All those who come to the bureau are not registered but only such number as can be absorbed in the mill. Those registered have to attend the mill twice a day to ascertain whether a vacancy exists for them. On receiving a requisition from a department of the mills, the Labour Officer selects men from his register in accordance with the attendance put in by the person at the bureau and according to his efficiency which is marked against his name in the Register as A, B or C grade. The grading is done by the Overseers. Work is given in rotation, that is to say, if there are 10 qualified men and 5 vacancies, after the first five have been provided for, if a vacancy of any duration occurs, the sixth man is taken in instead of continuing the first man. After a worker is selected, he is sent to a department with an employment bureau number, name, and also showing the occupation for which he has been selected. The system was devised in order to eliminate the Babu and the Sirdar. Actually, however, it is understood that the departmental heads do not always employ the person recommended by the bureau but suggest instead the name of someone else. Sometimes, the Sirdar not liking the man sent by the bureau, goes on complaining against him to the Overseer about his inefficiency, etc. Thus, in some cases Labour Officers who are not invested with sufficient powers by the management are apt to become only tools in the hands of the supervisory staff.

Whenever the supply of 'Budli' labour falls short of requirements new hands are recruited at the gates and they are sent to the departments for a test as to their capabilities and if found suitable, are entered in the 'Budli' register of the Bureau. The recruitment of apprentices is not done by the Labour Officers.

When old workers return from long leave which they have over-stayed, the record cards are looked up and the man is registered for temporary work if there is nothing on record against him. A man found negligent or inefficient is generally sent to the bureau with a note to the effect that he should be registered for temporary work.

Those selected by the Labour Officers for the 'A' grade are granted jobs to fill in vacancies from one week to three months. 'B' grade workers get jobs after 'A' grade workers have been provided and can be given jobs for a period varying from one to two weeks. 'C' grade men are given jobs from half a day to one week. On the whole, the system, it is understood, though carefully worked out, still contains loopholes on account of the considerable influence enjoyed by the supervisors and therefore, in spite of the appointment of Labour Officers and the establishment of Labour Bureau, the system of recruitment leaves much to be desired. The Labour Officers are subordinate to the managers whose tendency is to support their departmental subordinate staff.

Some concerns which have appointed Labour Officers continue to make recruitment through the departmental heads.

It is understood that although, in recent years, there is some diminution in bribery and corruption in regard to employment, promotion, grant of leave, etc., such practices still continue. The main reason for this is that it has become almost traditional both for the labour and the subordinate supervisory staff, such as Sirdars to give and receive bribes. The appointment of Labour Officers has improved matters to some extent, but it is understood that the workers themselves resent being told that they should not pay anything either in cash or in kind for employment or promotion. And in fact in some cases a small amount is paid to the lower supervisory staff regularly on each pay day. The system, it is understood, of giving and taking bribes is somewhat as follows :

In the weaving department, it is understood, much money passes to the Sirdar and the clerks from the workers for remaining in their good books. A sirdar in a particular mill has been reported to be making as much as Rs. 800|- per month. In view of this, there has recently been a move to do away with Head Sirdars. This is similar to what was at one time happening in the Bombay Mill Industry in regard to the Head Jobbers who were becoming all-powerful. It is understood that some of the clerks concerned with the attendance, payments, etc. make about Rs. 250|- per month by way of illegal gratification, although their pay is about Rs. 35|- per month only.

The illiteracy and backwardness of the operatives and the fact that many of the clerks are under-paid and over-worked make it difficult completely to eradicate the evil of bribery and corruption. Moreover, the absence of organisation among the workers helps to keep going the existing order. The example of the Bombay Cotton Mill Industry, however, shows that an organised campaign by the industry to eradicate this evil can produce effective results. That this is desirable and necessary, no friend of the industry can deny.

Length of Service.—There are no proper records of the length of service of operatives in most of the mills although recently there has been a tendency to maintain complete records relating to the employees. A specimen Service

Card is attached as Appendix III. An attempt was made to obtain information on this subject from 19 among the mills selected for the *ad hoc* survey and the following statement summarises the results of the enquiry :

TABLE VI.

Period of service.	Number of workers.	Percentage to total.
0—1 year	16,754	23·01
1—5 years	25,750	35·37
5—10 years	20,468	28·11
Above 10 years	9,832	13·51
Total ..	72,804	100·00

It is interesting to note that 28.11 per cent. of the operatives had served between 5 to 10 years, and as many as 13.5 per cent. had service of over 10 years in the same mill.

Speaking generally, skilled and semi-skilled workers in better-paid occupations, such as spinning, weaving, machine sewing, etc., stick to the mill which they have once joined and turnover among them is, normally speaking, not very high. It is among the unskilled occupations that there is a constant in and outflow of workers.

Classification of Workers.—So far, there is no regular system in jute mills for the classification of workers as permanent, temporary, etc. As stated elsewhere in this Report, however, the Jute Mills Association have under consideration a set of draft rules regarding service conditions in which, as will be seen from Appendix IV, provision has been made for the classification of workers.

Apprenticeship.—There is no fixed system of apprenticeship and training for ordinary operatives in Jute mills. Some mills take raw men for training and pay them a nominal wage. At present there is in force an apprenticeship and training scheme of the Association according to which scholarships are granted to nominees of mills for purposes of giving technical training. These nominees must have passed the matriculation examination. The scholarships are granted annually and are tenable for a period of five years.

Hours of Work and Shifts.—The member mills of the Indian Jute Mills Association follow the recommendation of the Association in regard to the weekly hours of work. As will be seen from Appendix I, the weekly hours of work in Jute Mills in Bengal vary considerably from year to year and at the time of the enquiry it was found that the mills with more than 220 looms were permitted to work 66 hours a week. Those with less than 220 looms were permitted to work 72 hours per week. Many of the mills, however, work for 60 hours in some departments and 66 hours in others in order to build up a sufficient store of yarn. During periods of coal shortage several mills worked only a 54-hour week. Work usually commences at 5.30 in the morning and goes on till 10.30 a.m. or 11 a.m. Thereafter, there is a recess period of one to 2½ hours. Work again commences at 1 or 1.30 p.m. and continues up to 6.30 or 7.30 p.m. Many mills allow a short rest interval of 10 to 15 minutes during working hours, which is given to the workers in rotation. Wherever such a system prevails, there is considerable hardship to the workers because some get that recess very early in the morning and others very late.

At the time of the enquiry a number of mills were found to be working double shifts. These were the ' Foster ' Mills referred to above. Where two shifts are worked, the shift hours are as follows :—

5 to 10 A.M.	..	A Shift.
10 A.M. to 3 P.M.	..	B ,,
3 P.M. to 7 P.M.	..	A ,,
7 P.M. to 11 P.M.	..	B ,,

The actual working hours per shift are thus 9. the spread-over being of 13 to 14 hours.

The multiple shift system which was once a considerable source of abuse has now been abolished. Double split shifts are worked in Foster Mills while others work the single split shift.

Some of the mills work for 11 hours for four days, ten hours on Fridays and six hours on Saturdays. Others work 11 hours for five days and five hours on Saturdays, while still others work some of the departments excluding spinning for the whole of Saturday to build up a sufficient stock of yarn.

Owing to the long afternoon break the workers are able to go to their homes for the afternoon meal. Single persons generally cook their own food after returning from work both times. Where the distance between the mill and the home is very long, the worker's food, if he is a family man, is brought to him by his wife or children. There are no dining halls and the food is eaten either in the departments themselves or anywhere in the compound. Those living singly and living at considerable distances from the mills are put to great hardship owing to the absence of canteens supplying cooked food. It is understood that one of the mills was running such a canteen and selling a hot meal for as. 3. It was a great success.

Working Conditions.—Most of the jute mills are well laid out and planned. Some of them, however, are not so well lighted as they should be and artificial lighting has to be resorted to even during day time. Most of the mills are fairly well ventilated, but exhaust fans and dust extractors have not been installed in them.

There is enough moving space in the departments of the mills for the workers, although in some cases there is room for improvement in the lay-out of the machinery. Air conditioning has not been done though its beneficial effects on the health and efficiency of the workers are obvious.

As a result of the conditions created by the War, such as the requisitioning of mills, warehouses, open spaces, etc., working conditions in the mills have deteriorated considerably. Nor has it been possible, owing to the shortage of various kinds of material, to go in for extensions, new buildings, repairs, etc.

The following table† shows the number of accidents caused by jute mill machinery for the years 1935-39 and for 1944.

It will be seen that there has been a striking increase in the number of accidents in practically all the departments in 1944 as compared to 1939. As in previous years, the greatest number of accidents have occurred while working

†Compiled from information supplied by the Chief Inspector of Factories, Bengal, to the Commissioner of Labour, Bengal.

on looms in the weaving department. The spinning department has, however, shown a decrease in incidence which is probably due to the stepping down in speed brought about to meet the shortage of labour. While interpreting the increase in the number of accidents we must, however, not lose sight of the increase in the total number of operatives coupled with an increase in working hours.

TABLE VI (*a*).

	SOFTENER				CARDING				DRAWING				ROVING				SPINNING.			
	Fatal.	Serious.	Minor.	Total.	Fatal.	Serious.	Minor.	Total.	Fatal.	Serious.	Minor	Total.	Fatal.	Serious.	Minor.	Total.	Fatal.	Serious.	Minor.	Total.
1935	1	11	3	15	1	67	41	109	..	18	13	31	..	46	33	79	..	52	98	150
1936	..	6	9	15	2	89	56	147	..	27	24	51	..	44	46	90	..	57	137	194
1937	..	12	10	22	1	75	77	153	1	21	35	57	1	53	59	110	..	70	198	268
1938	..	3	10	13	1	84	97	182	..	27	28	55	..	43	73	116	..	79	265	344
1939	1	6	13	20	..	75	81	156	..	25	25	50	..	47	73	120	..	65	376	441
1944	..	18	11	29	2	112	120	234	..	44	34	78	1	58	59	118	..	73	215	288

	WINDING			LOOMS.			CALENDERING			UNCLASSIFIED			TOTAL		
	Serious.	Minor.	Total.	Serious.	Minor.	Total.	Serious.	Minor.	Total.	Fatal.	Serious.	Minor.	Fatal.	Serious.	Minor.	Total.
1935	29	40	69	.. 146	286	432	.. 11	1	12	1	76	97	174	3 456	612	1071
1936	58	138	196	.. 207	516	723	.. 25	9	34	..	72	141	213	2 585	1076	1663
1937	60	99	159	.. 240	658	898	.. 17	11	28	..	69	156	225	3 614	1303	1920
1938	61	137	198	1 257	627	885	1	8	12	21	..	99	161	260	3 661	1410	2074
1939	53	163	216	.. 211	668	879	.. 10	8	18	1	140	245	350	2 596	1652	2250
1944	65	190	255	.. 234	724	958	.. 19	12	31	2	108	217	327	5 731	1582	2318

Sanitation and Water Supply.—Drinking water is supplied to the workers in the mills through water taps connected with municipal mains ; but as the supply is inadequate, many of the mills have augmented the water supply by sinking tube wells, which are either electrically or mechanically operated. Water from the tube wells is plentiful. Some mills supply ice water to their workers during the summer months, while in several others there is no such provision.

Although the number of latrines and urinals provided is in accordance with the provisions of the Factories Act they are generally very badly kept. They are constructed in close proximity to the departments and the sanitary conditions in these are deplorable. No wonder that many workers prefer to use the open spaces instead of visiting these. This is a matter which requires to be looked into urgently.

It is unusual in this country for factory managements to provide seating arrangements to the operatives during working hours. However, especially in a department in which a large number of women are employed it would help considerably to reduce fatigue if they could get chance of sitting during brief intervals. This is a reform which seems worth a trial. Even for male operatives, in the absence of any seating arrangements in the departments, some provision for rest seems desirable especially during the rainy weather when they cannot go out and rest.

Service Conditions.—Recently the Indian Jute Mills Association has taken up the question of framing service conditions and Standing Orders for operatives employed in its member mills. If these Standing Orders are brought into effect, it is presumed that a step forward will be taken in regulating the relations between the employers and the employees.

Labour Officers.—Since about the year 1937 the Jute Mills Association has begun to appreciate the idea of appointing Labour Officers and at present quite an elaborate organisation has been set up for this purpose. The Association has appointed eleven such officers excluding the Senior Labour Officer. Each officer is in charge of a zone of jute mills while one of them deals with administration. The main functions of these officers are to see to it that the Association's recommendations regarding hours of work, stoppages of looms etc., are carried out. They have night officers in the different zones where they receive complaints from the workers on certain days of the week. In addition to the Association's Labour Officers, many of the mills have their own Labour Officers who are incharge of their Labour Bureau for registration of workers, maintenance of service cards, etc.

The first mill to appoint a Labour Officer was Bird & Co., who have a well organized Labour Liaison Department with a European Labour Liaison Officer in-charge. In nearly all the mills in which there is a Labour Officer, a Bureau has been set up to function under him. The main functions of the Bureau are recruitment of labour and maintenance of proper service cards for the workers.

The Bureau is also expected to receive complaints regarding the grievances of the workers and to bring them to the notice of the authorities. It is reported that in many instances mill managers regard the Labour Officers of the mills with suspicion and consider them to be of doubtful utility. This may be partly due to the fact that in the initial stages men of the right type were not available for the posts of Labour Officers. In a few cases, however, Labour Officers are considered to be of inestimable value in relieving the manager of much of his work in matters directly connected with labour. A few mills have Labour Officers but maintain no service cards. Some mills, though they have Labour Officers, do not entrust the work of recruitment to them but retain the power in the hands of the Supervisory officers and Sirdars.

There is no doubt that the Jute Mills Association has now adopted a progressive policy in regard to the creation of a liaison between the employers and the employees. The organization created is, however, still in an experimental stage and much patient thought and persistence will be required to set it on proper basis in order that the industry may be able to derive maximum benefit from it. In this connection attention may be drawn to a similar experi-

ment in Bombay, where the Millowners' Association's Labour Officer exerts considerable influence over individual managements and works in close co-operation with the Government agency dealing with labour.

Wages and Earnings.—The discussion of the wage position in the Indian Jute Mill Industry is fraught with special difficulty in view of the paucity of information on the subject, the multiplicity of occupations in it and the absence of standardization of any kind. As the Royal Commission on Labour in India pointed out, "the Jute Industry has been more fortunate than the cotton industry as regards the prevalence of industrial unrest and the repurcussion of political factors upon stability. As a result, it has escaped the series of investigations by statutory and other bodies to which its sister industry has been subjected in the last few years."* In view of this, the Commission were greatly handicapped in discussing questions relating to wages in jute mills and all that was possible for them to do was to set down a few figures of average weekly earnings in certain occupations in 1929. These data, however, had no official authority and were one-sided. In order, therefore, to obtain accurate information regarding wages and earnings, a Wage Census covering 35 mills was taken for purposes of the present survey.

The following paragraphs contain a discussion of the scope and method of the Wage Census and its results.

After consultation with the Commissioner of Labour, Bengal, it was decided that instead of confining the wage census to a sample of workers in all the units of the industry, a sample of the units themselves should be taken and all the workers in these should be covered. In order to ensure the representative character of the sample, all the mills in the Bengal Jute area were classified into four classes according to loomage. The following was the classification adopted :—

(1) Units with 500 or less looms,

(2) Those with more than 500 but less than 1,000,

(3) Those with 1,000 but less than 1,500, and

(4) Those with 1,500 or more.

Accordingly, 11 units from the first class, 16 from the second, 5 from the third and 3 from the fourth were selected for purposes of the Census. In selecting the units care was also taken to ensure the representative character of the data from the point of view of the location of the units and types of managements. All the important occupations in the selected units were covered by the Census and as a result data for a total of 117,207, samples or about 94 per cent. of the total employed in the sampled units or 42.2 per cent. of the total employed in the industry in Bengal.

The form adopted for the enquiry was similar to the one adopted for wage enquiries conducted in other industries although certain changes were made to suit local conditions. It is printed as Appendix V.

Experience of similar enquiries in Bombay having shown that they can be more expeditiously and accurately carried out by sending Investigators to the mills rather than asking the employers to make the returns, the Committee's investigating staff was asked to copy out the wage data from the pay and muster rolls of the sampled units. In order to obtain strictly comparable figures it was originally decided to take the census for a selected week in January 1944, but this decision could not be adhered to in the case of the mills

*Report of the Royal Commission on Labour in India, page 215.

owing to thier having remained closed during that week. The census period was as follows in the case of the different sampled units :—

Week ending 15th January 1944 in the case of ..	.. ..	11 mills.
Do. 22nd January 1944 in the case of ..	.. ..	5 „
Do. 29th January 1944 in the case of ..	.. ..	15 „
Do. 26th February 1944 in the case of..	.. ..	1 mill.
Do. 18th March 1944 in the case of ..	.. ..	1 „
Do. 22nd April 1944 in the case of ..	.. ..	1 „
Do. 19th August 1944 in the case of ..	.. ..	1 „
	Total ..	35

The selection of the wage period was also made after consultation with the Commissioner of Labour, Bengal, and the Jute Mills Association, Bengal.

The slight variations in the census periods, however, do not affect the results of the enquiry as there were no changes in wage rates in jute mills during this period in accordance with the following decision of the Indian Jute Mills Association.

"Owing to possible repercussions on War effort, the Association have recommended that for the duration of war, no changes should be attempted by any members in their existing rates until the question is taken up by the Association themselves on the basis of the standardization of the entire industry."

The work of the Investigators was supervised by the Supervisors of the Committee. Before undertaking tabulation of the data, there was a local check of the entries and there was a further check in the Head Office in Simla.

When the data were received, many difficulties were experienced in the process of tabulation. For instance, it was found that the weekly hours of work varied very considerably as between unit and unit and ranged from 48 to 72 per week. As will be seen from the tables in Appendix VI, however, in the majority of the units the weekly working hours were 54 during the census period. Another difficulty experienced was that in some cases the earnings were shown for normal and overtime work together. Wherever possible, an endeavour was made to split up these two elements in order to make the figures comparable.

In the case of piece-workers it was difficult to separate the earnings accruing from basic rates for normal work and for overtime work and the weekly earnings for such workers have, therefore, been shown inclusive of overtime period. As in the Cotton Industry, in the Jute Mill Industry also, there is a multiplicity of occupations and occupation nomenclatures. It is estimated that there are over 150 occupational nomenclatures in the Jute Mill Industry

in Bengal. In some cases, the same occupation is called by a different name in a different unit. In the process occupations, however, although there is a large number of nomenclatures there is a fair degree of uniformity in designating the occupations. Moreover, in some units two different types of workers were shown in the same department while they were shown distinctly in others.

In the short time in which this Report had to be prepared it was not possible, nor was it considered necessary, to tabulate the data for all the occupations. Only 21 numerically important occupations covering 69.1 per cent. of the labour force employed in the sampled units have, therefore, been selected for preparing the tables relating to wages and earnings. The tables showing the wages and earnings in selected occupations in the 35 mills covered by the Wage Census will be found in Appendix VI. Charts showing Weekly basic wages in certain important occupations are given in Appendix VI(a). Earnings accruing from basic wage rates and net earnings including allowances, overtime pay, etc., have been shown separately.

The figures presented in the table relate as stated above, to 21 selected occupations accounting for 85,794 or 69.1 per cent. of all the workers in the selected units.

An analysis of the figures relating to the 21 mills which were selected for purposes of the *ad hoc* survey shows that of the total, slightly over 60 per cent. were time-rated and the rest on piece-rate basis. The time-rate is calculated on an hourly basis and the piece-rate according to a fixed unit of work Selectors in the batching department are paid both on time and piece-rates. The others in this department are on piece-rates. The workers in the preparing and Spinning departments are all on time-rates. In Winding, sirdars are on time-rate, winders on piece-rates, while other workers are on time-rates. In Beaming, the Sirdars are on time-rates, the beamers on time and piece-rates, while the others are on time-rates. In Weaving, Sirdars are both on time and piece-rates, weavers on piece-rates, while the others are on time-rates. In the Sewing department, sewers are on piece-rates, others being on time-rates. All the workers in the machine and general departments are on time-rates.

The Indian Jute Mills Association have, in their reply to the Committee's questionnaire, stated that " no scientific principles were adopted in the fixation of wages, the only determinants being the excess of supply of labour over demand of workers which has had an important influence on wages throughout the career of the industry up to the outbreak of the present War ". Thus, except for a ten per cent. general increase in wages granted in 1939, there has been no important change in the basic wage structure in the industry.

The tables in Appendix VI are self-explanatory and need little comment. At the time of the census a majority of the mills were working a 54-hour week, although in some, the hours of work were as many as 72 in certain departments. The variation in the hours of work between unit and unit does not, however, affect the interpretation of the tables below.

TABLE VII.

Frequency table showing the Average Weekly Basic Wages in Selected Occupations in Jute Mills in Bengal covered by the Wage Census.

Occupations.	Number of workers whose average weekly basic wages (excluding allowances) were															
	Below Rs. 2-8.	Rs. 2-8 & under Rs. 3.	Rs. 3 & under Rs. 3-8	Rs. 3-8 & under Rs. 4.	Rs. 4 & under Rs. 4/8.	Rs. 4-8 & under Rs. 5.	Rs. 5 & under Rs. 5-8.	Rs. 5-8 & under Rs. 6.	Rs. 6 & under Rs. 6-8.	Rs. 6-8 & under Rs. 7.	Rs. 7 & under Rs. 7-8.	Rs. 7-8 & under Rs. 8.	Rs. 8 & under Rs. 8-8.	Rs. 8-8 & under Rs. 9.	Rs. 9 & over.	Total.
1. Jute Selectors ..	..	..	45	57	241	113	115	97	107	10	11	..	..	..	2	798
2. Jute Cutters	..	31	355	363	601	82	..	..	..	..	..	..	..	..	..	1,432
3. Softener Feeders & Receivers.	28	187	631	350	128	..	..	..	..	..	..	..	..	..	..	1,324
4. Teaser Feeders & Receivers	12	121	316	77	40	..	..	..	..	..	..	..	..	..	..	566
5. Breaker Feeders & Receivers.	48	714	1,454	294	134	..	..	..	..	..	..	..	..	..	..	2,644
6. Finisher Feeders & Receivers.	94	464	488	73	16	3	..	..	..	..	..	..	..	..	..	1,078
7. Drawing Feeders & Receivers.	104	1,566	1,646	83	105	27	..	..	..	..	..	..	..	..	..	3,526
8. Roving Feeders ..	44	429	806	189	..	75	10	..	..	..	..	..	..	..	..	1,553
9. Rovers	..	14	99	245	415	225	27	..	..	..	..	..	..	..	..	1,025
10. Roving Shifters ..	18	77	267	757	199	171	..	..	..	..	..	..	..	..	..	1,489
11. Hessian Spinners ..	..	..	..	590	1,530	2,933	937	252	..	..	..	..	..	..	..	6,242
12. Sacking Spinners ..	..	..	33	174	931	1,263	603	170	93	..	..	..	..	..	..	3,267
13. Spinning Shifters ..	..	289	1,096	2,472	1,108	502	..	..	..	..	..	..	..	..	..	5,467
14. Cop Winders	..	42	47	199	1,275	956	259	794	..	4	..	..	186	..	..	3,762
15. Warp Winders	94	256	369	956	960	355	117	88	184	122	165	..	..	..	..	3,656
16. Beamers	..	4	26	11	151	32	168	379	457	137	189	160	50	129	..	2,193
17. Hessian Weavers ..	..	..	250	187	1,003	157	353	3,318	3,795	4,556	..	1,319	..	1,029	1,571	17,538
18. Sacking Weavers ..	..	..	116	..	312	486	..	374	1,087	3,173	1,016	1,667	374	547	710	9,762
19. Hemmers	131	..	50	..	176	299	221	188	691	12	139	192	131	16	258	2,498
20. Hand Sewers	743	631	386	529	193	322	123	94	..	..	..	..	..	..	..	3,021
21. Coolies	76	72	2,526	6,937	1,823	980	..	..	539	..	..	..	..	..	..	12,953
Total ..	1,392	4,827	10,996	14,548	11,335	8,981	2,933	5,754	6,953	8,214	1,520	3,338	741	1,721	2,541	85,794
Percentage to Total ..	1·62	5·63	12·82	16·96	13·20	10·47	3·43	6·71	8·10	9·57	1·77	3·89	0·86	2·01	2·96	100

It will be seen from the above Frequency Table of Basic wages that weavers (Hessian and Sacking) form the single largest body of workers in jute mills and of the workers about whom information has been given in this table, formed as many as 31.8 per cent. of the total. In the census no weaver was returned whose basic wage was less than Rs. 3|- per week and, in fact 90.8 per cent. of them or 28.9 per cent. of the total had earned from the basic rates Rs. 5|- per week or more. As many as 8.35 per cent. had an earning accruing from the basic wage of Rs. 9|- and over.

The next single largest body of workers is of spinners, hessian and sacking. These form 11.09 per cent. of the total for whom figures are given in the table. Of these, nearly 44.2 per cent. were found in the basic wage group Rs. 4|8|- to Rs. 5|- per week, the next largest proportion of them being in the wage group Rs. 4|- to Rs. 4|8|- per week. None of the hessian spinners and one only 93 of the sacking spinners had a weekly wage exceeding Rs. 6|- per week.

Spinning shifters who numbered 5,467 or 6.4 per cent. of the total is another numerically important group of workers. A large proportion of them or 85.4 per cent. of the total are to be found in the wage groups Rs. 3|- to Rs. 4|8|- per week. The lowest basic wage of a shifter seems to lie in the category Rs. 2-8-0 to Rs. 3|- per week, as many as 289 having been returned in this category. Winders—cop and warp—numbered 7,418 or 8.6 per cent. of the total number covered. The variations in the wages of winders appear to be greater than in the case of most of the other occupations, with the exception, perhaps of Beamers, Weavers and Jute Selectors. Even so, however, the largest concentration of winders appears to be in the wage groups Rs. 3|8 to Rs 4|-, Rs. 4|- to Rs. 4|8 and Rs. 4'8 to Rs. 5|- per week, accounting for 63.4 per cent. of the total.

The Census returned information for nearly 12,500 coolies, whose wages vary from Rs. 2-8-0 to Rs. 5-0-0 per week. There were only 539 coolies under the wage category Rs. 6-0-0 to Rs. 6-8-0 per week.

So far as Softener Feeders and Receivers, Teaser Feeders and Receivers, and Breaker Feeders and Receivers are concerned, none of them seems to have a basic wage rate of more than Rs. 4-8-0 per week and, as a matter of fact, a large percentage or 68.8 per cent. of the total seems to fall within the wage category Rs. 3-0-0 to Rs. 3-8-0 and Rs. 3-8-0 to Rs. 4-0-0.

Taking all the workers in the selected occupations, it will be seen that the basic wages of 20.07 per cent. lie within the wage group Rs. 2-8-0 to Rs. 3-8-0 per week, of 40.63 per cent. in the wage group Rs. 3-8-0 to Rs. 5-0-0 per week, of 33.47 per cent. in the wage group Rs. 5-0-0 to Rs. 8-0-0 per week and of 5.83 per cent. within the wage group Rs. 8-0-0 to Rs. 9-0-0 and over.

The net earnings of the workers in the selected occupations have been presented in the following table :—

TABLE VIII.

Frequency table showing the average weekly net earnings in Selected Occupations in the Jute Mills in Bengal covered by Wages Census.

Occupations.	Number of workers whose average weekly net earnings were														
	Below Rs. 4.	Rs. 4 & under Rs. 4-8	Rs. 4-8 & under Rs. 5.	Rs. 5 & under Rs. 5-8.	Rs. 5-8 & under Rs. 6.	Rs. 6 & under Rs. 6-8.	Rs. 6-8 & under Rs. 7.	Rs. 7 & under Rs. 7-8.	Rs. 7-8 & under Rs. 8.	Rs. 8 & under Rs. 8-8.	Rs. 8-8 & under Rs. 9.	Rs. 9 & under Rs. 9-8.	Rs. 9-8 & under Rs. 10.	Rs. 10 & over.	Total.
Jute Selecters	..	..	45	103	68	222	106	112	67	52	..	21	..	2	798
Jute Cutters	..	40	90	279	835	188	..	..	..	..	..	..	..	..	1,432
Softener Feeders & Receivers ..	16	82	596	282	187	161	..	..	..	..	..	..	..	..	1,324
Teaser Feeders & Receivers	7	42	210	220	55	32	..	..	..	..	..	..	..	..	566
Breaker Feeders & Receivers ..	17	402	1,305	659	250	11	..	..	..	..	..	..	..	..	2,644
Finishers Feeders & Receivers ..	2	440	453	80	56	47	..	..	..	..	..	..	..	..	1,078
Drawing Feeders & Receivers ..	52	1,291	1,712	251	193	27	..	..	..	..	..	..	..	..	3,526
Roving Feeders	32	247	632	499	58	65	..	20	..	..	..	..	..	..	1,553
Rovers	..	7	22	216	292	317	126	45	..	..	..	..	..	..	1,025
Roving Shifters	..	14	175	590	324	240	..	146	..	..	..	..	..	..	1,489
Hessian Spinners	..	..	..	22	505	2,632	1,635	992	90	178	188	..	..	..	6,242
Sacking Spinners	..	..	..	90	322	1,228	617	804	213	93	..	..	..	..	3,267
Spinning Shifters	..	..	399	2,076	2,076	777	..	139	..	..	..	..	..	..	5,467
Cop Winders	..	42	..	261	906	721	496	286	160	464	..	..	186	..	3,762
Warp Winders	186	27	535	856	984	463	46	..	29	304	103	123	..	..	3,656
Beamers	..	..	..	84	66	66	110	183	596	339	533	156	116	144	2,193
Hessian Weavers	..	..	289	148	24	869	1,483	2,146	4,424	1,414	1,419	1,562	1,100	2,600	17,538
Sacking Weavers	..	116	..	..	306	..	218	613	544	1,000	732	1,966	521	1,559	9,762
Heelaners	50	..	131	..	416	126	200	129	386	529	105	281	35	304	2,498
Hand Sewers	749	708	268	564	193	522	116	100	1	..	..	..	..	..	3,021
Coolies	25	908	1,505	2,189	6,390	598	116	577	595	..	..	..	..	6	12,953
Total ..	1,136	4,366	8,367	9,469	14,506	9,112	5,716	6,062	6,649	6,779	3,080	4,109	1,818	4,595	85,794
Percentage to Total ..	1·32	5·09	9·74	11·04	16·91	10·62	6·70	7·07	7·75	7·90	3·59	4·79	2·12	5·36	100

These earnings include all allowances, such as amenity allowance, production bonus, overtime pay, A.R.P. allowance, etc. The figures, however, do not take into consideration the factor of absenteeism and relate to all workers and not merely to full-time workers. Here again, the figures are self-explanatory and require little comment. It might also be pointed out that at the time of the Census, the amenity allowance announced to Rs. 1-4-0 per week, while at present, it is Rs. 2-0-0 per week. So far as is known, there have been no other changes in the allowances either in the upward or downward direction. The figures in the table should, therefore, be read in the light of the fact that the earnings shown above would be higher today to the extent of the increase in the amenity allowance.

It will be seen from the table that 16.15 per cent. of the workers are in the earning category of less than Rs. 5-0-0 per week, 52.34 per cent. in the earning group Rs. 5-0-0 to Rs. 7-8-0 per week, 19.24 per cent. in the earning category Rs. 7-8-0 and Rs. 9-0-0 per week and the remainder or 12.27 per cent. earn from Rs. 9-0-0 and over per week.

It is of interest to note that none of the Jute Cutters, Softerner Feeders and Receivers, Teaser Feeders and Receivers, Breaker Feeders and Receivers, Finisher Feeders and Receivers and Drawing Feeders and Receivers earn more than Rs. 6-8-0 per week. Among Weavers, 4,139 or 15.12 per cent. of the total earn Rs. 10-0-0 and over. The earnings of the bulk of the coolies or 37.7 per cent. of the total lie within the earning groups Rs. 4-8-0 to Rs. 6-0-0, nearly half the coolies being in the earnings category Rs. 5-8-0 to Rs. 6-0-0 per week. None of the spinners appear to earn more than Rs. 9-0-0 per week. A large concentration of them is to be found in the earning groups Rs 6|- and under Rs. 7-8-0 per week.

As pointed out already, there are large variations in the basic wages of cop winders and, therefore, in their earnings as well. Cop Winders appear to be in receipt of a slightly higher earning than warp winders. However, taking winders as a whole, their earnings seem to lie within the earning group Rs. 5|- and under Rs. 7|-, the largest concentration being in the earning group Rs. 5-8-0 to Rs. 6-0-0 per week.

No dearness allowance as such is being paid by the jute mill industry in Bengal but, an allowance known as the " amenity allowance " is paid instead. At first, namely in June 1941, the rate of this allowance was annas four per month. This has increased from time to time, and since December 4, 1944, stands at Rs. 2|- per week. Payment of this allowance is linked to attendance.

In addition to the cash allowance, the mills issue foodstuff from the mill Ration shops at concession rates. The quantities allowed and the amount charged is shown in the following statement.

TABLE IX.

Item.	Quantity allowed.	Amount charged.
Rice and Wheat produots	4 srs. (2½ srs. rice and 1½ srs. atta).	Rs. A. P. 1 0 0 for 4 seers.
Dal	1 seer	1 0 0
Salt	1 seer per month ..	0 2 0 per seer.
Sugar	3/8 seer per week ..	0 8 0
Mustard Oil	1/2 seer per week ..	0 9 0 Mill No. 1. 0 8 0 Mill No. 2.

Different mills, however, charge different rates for the commodities supplied at the shops and the loss to the mills, therefore, varies. The following figures collected from 29 mills show the range of variation in the rates charged and the maximum, minimum and average loss to the mills per week on account of each employee.

TABLE X.

	Quantity in seer.			Rate per seer.			Subsidy.		
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
				Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Rice	2¼	2½	2⅜	0 3 6	0 2 9	0 3 3	0 9 4	0 7 6	0 8 6
Other Cereals ..	1	1	1	0 3 3	0 2 3	0 2 10	0 3 9	0 2 9	0 3 2
Atta & flour ..	1½	1½	1½	0 4 0	0 2 9	0 2 3	0 3 4	0 1 6	0 2 7
Dal	2	1	1-3/16	0 6 0	0 2 2	0 3 7	0 3 8	..	0 2 11
Sugar	½	¼	3/8	0 8 0	0 5 4	0 6 10	0 1 0	..	0 0 5
Salt	½	1/16	3/16	0 3 0	0 2 0	0 2 9	0 0 2	..	0 0 ½
Mustard Oil ..	⅛	1/8	3/8	0 12 0	0 9 0	0 10 3	0 5 0	0 1 9	0 3 3
Soji (in 2 mills) ..	¼	¼	¼	0 4 0	0 3 6	0 3 9	..	..	..
Kerosene (in 1 mill) ..	..	..	½ lb.	0 2 0 per lb.	..	..	..	..	..
Total ..	..	..	..	..	..	..	1 10 3	0 13 6	1 4 4½

It is seen that the maximum loss per head is Rs. 1-10-3, the minimum Rs. 0-13-6, the average being Rs. 1-4-4. According to the Association, however, the average subsidy on account of the supply of food stuffs is Rs. 1-1-9 per week per worker.

The grain concession was a great boon to the workers during the period of the Bengal famine. At this time prices of some of the staple articles reached unprecedented heights and at one time rice was being sold in Calcutta at the rate of Rs. 40|- per maund and even at this rate it was not available to the general public without difficulty.

In considering the earnings figures in table VIII above, account should, therefore, be taken of an additional earning of about Re. 1|- per week on account of food grain concessions.

The supply of food stuffs at concession rates is subject to certain conditions. For instance, the full concessions are given only to those who put in full attendance during the week with half-a-day's grace. For one or two day's absence, the amount of concession is proportionately less. Any worker absent for a period of three days or more in a week receives no concession for his purchase of food stuffs. Workers on sick leave, however, are allowed full concessions so far as the grant of grains is concerned.

Bonus.—Unlike most organised industries in the country the jute mill industry pays no prosperity or profit bonus. Efficiently or production bonuses are, however, given to weavers, weaving sirdars, spinners etc. in some of the mills. Some mills also pay an attendance bonus. These bonuses have been included in the earnings table given above.

Khoraki.—Jute mill workers in Bengal are not, however, sure of getting the wages and earnings shown above for all the weeks in the month or for 52 weeks in the year because, owing to the acute shortage of coal the mills in Bengal running on steam have had to close down very frequently during the year 1944-45 and in fact some of the mills had to remain closed for four to five

weeks at a time. Figures relating to the total loom hours lost due to coal shortage are given below :—

Year.	*Loom hours lost.*
Year ending 31st Dec. 1944	30,606,877.75
For six months from 1-1-1945 to 30-6-1945	11,453,841.09

In order to avoid hardship to the workers, the Indian Jute Mills Association, therefore, recommended to their member-mills that whenever workers in such mills had to remain compulsorily idle they should be given an allowance called ' khoraki ' of Rs. 4-4-0 per week. If a mill is closed for only a part of the week the workers are paid either Rs. 4-4-0 per week or the wages earned whichever is higher. Excepting in a few cases where the managements insist on such workers attending every morning for their *Hazari* the others do not do so and many of such workers often take up casual jobs in the neighbouring mills. The compulsory closure of mills, however, results in great hardship to the workers.

Penalties and deductions.—The results of the Wage Census do not show much difference between the gross earnings and the net earnings during the census period as will be seen from Appendix VI. Enquiries made, however, revealed that the workers, particularly in the weaving department, are frequently fined and the fines imposed are pretty heavy. There are also complaints that the actual amount of fine is not shown in the wage books or that the amounts shown are only those permitted under the Payment of Wages Act. The workers do not complain against these fines for fear that they may lose their jobs. Another method adopted by some of the mills for fining is to mark a man absent for a day or two even when he is present. Although technically the managers are supposed to impose fines or to take the other disciplinary action such as, warning, suspension, etc., it is understood that the Overseers are all-powerful in this respect.

Suspensions are also pretty frequent. A worker may be suspended from a few days to six months, the usual period of suspension being from 1 to 2 weeks. There is no uniformity of rules as between mill and mill in regard to disciplinary measures. As stated already, the Jute Mills Association has a panel of Labour Officers who hold night officers in the different areas to look into such grievances and it is to be hoped that in course of time, they will be able to remove these abuses if they exist.

Method of Wage Payment.—Except for Clerks and the supervisory staff, the period of wage payment in the jute mills in Bengal has been a week for many years now. Payment is usually made on a Friday or Saturday following the week for which wages become due. Payment is generally made by the overseers of the respective departments. Each worker is previously given a wage ticket which he hands over to the Overseer at the time of payment. Many mills which make payment on a Friday afternoon have made a rule that workers not turning up for work the next day would be suspended from the following Monday for a week or so. Some mills have built booths outside the mill buildings for making payments.

Workers who fail to turn up to receive their wages on the due date have their wages transferred to the back wages registers. They may demand their wages at any time but usually a special day of the week is ear-marked for the purpose. In view of the fact that there is no system of taking the worker's signature or thumb impression after payment is made, sometimes when a worker turns up for work he is told by the clerk in charge that he has already been paid and pockets the amount himself. It would appear that it is desirable

to have a system which will afford clear evidence whether or not an operative has received his dues.

Holidays and Leave.—Sunday is usually observed as a weekly holiday for all the workers in Jute mills, except those engaged on the maintenance work, such as generating plants. The Association has recommended to their member mills that six holidays with pay, three on Muslim festivals and three on Hindu festivals, should be granted. Certain variations to suit their workers are made by individual mills in the holidays thus granted. Actually, since 1943, seven holidays with pay are granted by the industry in an year, instead of six as recommended by the Association. Piece-workers are also paid their average earning for the days declared as holidays.

There is no system of granting leave with pay to the workers in jute mills. The workers are allowed to go on leave (a) when they wish to go to their villages, or (b) when they are sick. In regard to (a), it is reported that there is considerable hardship in getting leave particularly during the recent shortage of labour. In most cases the leave is recommended by the Overseers. The practise is that a worker must continuously work for a year to be entitled to three months' leave to go to his native place. It is stated that in order to get such leave the Sirdars have to be as much as Rs. 10|- to Rs. 20|-. This happens especially in mills where there are no Labour Officers or Labour Bureaux. Sometimes a worker returning from leave finds that he cannot get his job back and has to pay the Sirdar a considerable amount of money. Those who have proceeded on long leave are allowed a grace period of two weeks. An operative over-staying his leave has to forfeit his job. As regards (b) sick leave is granted only at the discretion of the management. Before the granting of such leave, a certificate has to be obtained from the Medical Officer of the factory. It is reported that the Medical Officer in granting the leave does not necessarily base his recommendation on the needs of the individual but on the availability of the supply of labour force to take the place of those likely to be granted leave. The result is that often sick people have got to go back to work for fear of losing their jobs. If a worker gets the medical officer to certify that medical leave should be granted to him, the certificate has to be shown to the Overseer who ultimately sanctions the leave.

It is reported that any worker applying for sick leave on Monday has to take the leave for the whole of the week and the same holds good for operatives taking leave on subsequent days. A worker getting well before the end of the week cannot resume his work unless there is shortage of labour. This system is justified by the managements as being convenient for maintaining the wage books. The recent labour shortage has, however, altered this considerably.

Standardization of Wages.—The above discussion of wages and earnings and a study of the tables given in Appendix VI and of the charts in Appendix VI(a) clearly shows that there is considerable variation as between mill and mill in regard to the basic wages paid in different occupations.

In their Report, the Royal Commission on Labour in India have quoted the Bengal Government on the subject as follows :

" Perhaps, in no industry in the world, situated in such a circumscribed area, is the wage position more inchoate. The mills grouped under different Managing Agents, work under wage systems which have developed many local idiosyncrasies during the long or short years of their existence. Even in mills under the same Managing Agents, there are differences which, to persons not acquainted with the position, seem incredible. For example, in two mills situated in the same area and separated from each other with little more than a boundary wall, under the same managing agents, there is practically not a

single entry of wages which is the same..... " The Commission observed that the absence of any investigations into the industry by statutory and other bodies probably accounted for the fact that " although the jute industry, on account of fewer variations in the classes of goods manufactured and the degree of comfort in the factory, is a far easier field for an attempt at standardization than the cotton industry, no serious consideration had hitherto been given to the matter* ". It is, however, understood that attempts are at present being made by the Indian Jute Mills Association in consultation with the Commissioner of Labour, Bengal, for evolving a scheme of standardization of wages in the jute mill industry in Bengal.

The question of standardization of wages in an important national industry is of such urgency that no apology need be offered for the following long extract from the Report of the Bombay Textile Labour Enquiry Committee, which has examined the principles and practice of standardization in considerable detail. They say :

" Our terms of reference require us ' to make recommendations regarding the standardization of wages', so that variations may be reduced and common standards of payment for similiar classes of work adopted. That is the aim of standardization of wages—the fixing for any one or all of the centres of an industry uniform scales of payment for identical types of work. Once a standardization of wages is introduced, divergencies in the standards of payment of labour are eliminated and thereby a fruitful cause of recurrent wage disputes removed. There is no occassion for competition between unit and unit in drawing the labour supply, while the scope for co-ordinated action in the matter of payment of wages is widened. From the point of view of labour, too, standardization of wages presents several advantages. The removal of a frequent cause of disputes is as great a gain to employees as to employers, and so is the widened scope for collective bargaining. A constant source of irritation is banished in so far as workers engaged in the same occupation in a centre get payment on the same scale. Besides, the fixing of common standards, which are published for general information, renders easier the task of verification and comparison. The educative influence of standardization is by no means inconsiderable. No less valuable is the influence of standardization in developing a feeling of solidarity among the workers. It is because of these advantages that follow in the wake of standardization of wages that the general principle finds universal support among associations both of employers and of labour. At the same time, it would be wrong to underrate the difficulties involved in achieving standardization. The manufacture of cotton goods comprises a number of operations requiring differing degrees of skill and effort which are not easy to evaluate for the purpose of determining the appropriate payment for each. The type of machinery and material in use, the conditions in which work is carried on, the quality of the goods manufactured—these factors influence production everywhere. Variation in these factors are partly responsible for the disparities in rates and earnings referred to above. In the absence of well-developed collective bargaining, scant success has hitherto attended efforts at reducing these disparities. The task of inducing those who have adopted low wage standards to agree to higher standards of remuneration is not an easy one ; nevertheless, it is one that has, in our opinion, to be attempted without delay. In assaying it, what is needed, as the experience of Lancashire amply bears out, is the acceptance of the principle of collective bargaining as an integral feature of industrial relations. This is only proved by the history of standardization in the Indian Cotton Textile

* Report of the Royal Commission on Labour in India pages 215—216.

industry where the principal handicap has been the absence of a 'trade union movement capable of negotiating national wage scales*'. ".

According to the Committee, the following are the main principles underlying a scheme of standardization :

"1. The establishment for one locality of that wage level which represents at the moment an equitable basis between capital and labour.

2. The establishment of locality differentials.

3. The analysis of occupational differentials relative to each other.

4. The analysis of the normal productivity to be returned by labour in each occupation† ".

In connection with the discussions of a scheme of standardization in the jute mill industry in Bengal, referred to above, data have been collected for some 70 mills showing the range of potential earnings reduced to an hourly basis and a table containing this information will be found in Appendix VII. It cannot be said that the maximum and minimum rates given in the table are strictly comparable in view of the differences in the type of work, quality of the material produced, type of machinery in use etc., in the different units of the industry. Even so, however, these figures read with those in table VI seem definitely to establish the fact that very considerable variations in wages do exist as between mill and mill in similar occupations in the jute mill industry in Bengal.

From the quotations cited above from the Report of the Royal Commission on Labour in India and the Textile Labour Inquiry Committee there can be no doubt that wage rates and earnings in units belonging to the same industry and located more or less in the same geographical area should be standardized. The one difficulty in the case of the Jute mill industry may be the absence of strong Trade Unions capable of collective bargaining and of being in a position to deliver the goods when decisions have been reached. At the same time, this should not prove a very formidable difficulty in the case of the jute mills in as much as labour there is not strong enough to resist any equitable solution that is reached, although as suggested by the Royal Commission on Labour in India any such settlement should be, as far as possible, in consultation with the representatives of labour. In the case of Bengal, the question of the differentials in the wage rates as between the various geographical locations of the units of the industry would also not arise in view of the compactness of the area, which is some 60 miles on either side of the river Hooghly. Thus, the differences in the cost of living as between these areas cannot be very marked.

Standardization of wages has been effected in most of the principal occupations, both on time and piece rates, in the Ahmedabad Cotton Mill Industry. In Bombay also, in the year 1934, the Bombay Millowners' Association brought out a list of minimum rates of wages for time-workers in the member-mills of the Association and this was almost immediately acted upon by all the units in the industry. The variations in the rates of wages as between mill and mill in Bombay City were, as can be seen from the Report of the Bombay Labour Office on Wages and Unemployment, almost as large as those obtaining in jute mills in Bengal. In view of what has already been stated on the question, therefore, the postponement of standardization would only be the postponement of an evil which will have to be eradicated some day.

The actual framing of a standardization scheme is a matter for technicians. If a layman, however, can venture on a suggestion it would appear that, while

* Report of the Textile Labour Inquiry Committee, Bombay, pages 99—100.

† *Ibid.*, page 102.

dealing with time-rate occupations at any rate,—and these according to the available information account for nearly 60 per cent. of the total—in spite of multiplicity of the occupations, it should be possible to tackle the issue without undue difficulty. It may look like over-simplifying the issue but a possible approach to the problem appears to be first of all, to standardize the occupations then group them into half-a-dozen or even less number of classes according to the degree of skill and effort required and fix a minimum for the lowest-paid class which minimum should represent at the moment on equitable basis between capital and labour. Having done this, incremental grades could be fixed for each of these classes. For instance, if the basic lowest wage is Rs. 5|- per week and the highest wage is Rs. 10|- or say Rs. 20|- and Rs. 40|- respectively per month, the grade roughly would be Rs. 20-25|Rs. 25-30|Rs. 30|- to Rs. 35|- and Rs. 35|- to Rs. 40|-. This will deal with the insistent demand of labour for graded promotions, and act as an incentive to them to continue work in a unit. Moreover, graded promotions will also do away with such obstacles as may exist in the industry today in the way of the worker's promotion on account of favouritism etc. shown by the lower supervisory staff.

It is to be hoped that this industry, which in the words of the Royal Commission " has all the advantages of a high degree of internal organization on the employers' side " will pursue its present efforts at standardization of wage rates for operatives and make it an accomplished fact at an early date.

Standard and Cost of Living.—A family budget investigation which was conducted during the period July 1943-July 1944 in Howrah and Bally throws interesting sidelights on the standard and cost of living of jute mill workers. Of the budgets collected, 381 related to families, the heads of which were employed in jute mills. It is seen that the average family of a jute mill worker consists of 4.2 persons, of whom 1.6 are earners and 2.6 dependants. The average weekly income from all sources of the 1.6 earners came to Rs. 15-12-7 (wages including over-time pay, dearness allowance, bonus, amounted to Rs. 11-13-5 or Rs. 7-6-4 per earner, money value of food concessions amounted to Rs. 4-0-7, and the income from other sources, e.g., estimated rent of self-owned houses, A.R.P. allowances etc. amounted to Rs. 0-14-7), while the average weekly expenditure amounted to Rs. 18-9-2, thus leaving a deficit of Rs. 1-12-7 per week. Of the total expenditure of the family, 74.1 per cent. was on food only, 7.6 per cent on fuel and lighting, 3.4 per cent on house rent, 5.1 per cent on clothing and 9.8 per cent on miscellaneous items. In calculating the income of the family due ragard has been paid to the monetary gain to them as a result of the food concessions. It is no doubt true that the investigation was made when prices ruled high in Bengal. At the same time, as compared to the standard of living, say, of cotton mill workers in Bombay, the standard of living of Jute mill workers appears to be appreciably lower as nearly three-quarters of their income has to be spent on food alone.

In the course of the family budget investigation referred to above, budgets were also collected for workers living singly or messing with similar other workers. Out of these budgets, 415 related to the Jute mill workers living singly. These budgets have been specially tabulated. It is seen that the average weekly income of a jute mill worker living singly is Rs. 9-14-4, consisting of Rs. 7-8-7 per week earned by way of wages, amenity allowance, over-time pay, etc., Rs. 2-3-11 being the money value of the food concessions and Rs. 0-1-10 by additional income from other sources, thus making a total of Rs. 9-14-4. On an average it was found that jute mill workers living singly have about 4.01 dependants living away in the villages. The total average weekly expenditure of a jute mill worker living singly comes to Rs. 9-12-10 of which nearly Rs. 2|- are spent for making remittances to dependants. Thus,

the actual expenditure comes to Rs. 7-12-10. Of this, on an average Rs. 5-13-1 is spent on food Re. 0-11-1 on fuel and lighting, Re. 0-3-8 on house rent, Re. 0-7-3 on clothing and household requisites and Re. 0-9-9 on miscellaneous items. The corresponding percentage expenditure on the various groups thus comes to 74.62, 8.85, 2.94, 5.77 and 7.82.

It is understood that the standard of living of jute workers is lower than that of workers in other major industries in Bengal.

Certain figures of the remittances made to their relatives by workers in predominant jute mill areas collected by the Indian Jute Mills Association from the post offices in these areas are of interest in this connection. It is true that these figures do not relate only to jute mill workers, but as these form the majority in these areas they are of interest. It is seen that in 1944, the total remittances from these areas amounted to Rs. 283 lakhs. Assuming that there were 2,72,000 workers, the average remittance per worker comes to Rs. 100|- per year or about Rs. 8|- per month. This figure shows a very close resemblance with the figure given above of an average monthly remittance by a single worker of about Rs. 2|- per week.

The figure of the average weekly income of a single jute mill worker also bears close resemblance to the wage data discussed in the section relating to wages and earnings.

Indebtedness.—It has not been found possible to make any intensive investigation into the question of the indebtedness of jute mill workers. From such *ad hoc* enquiries as it has, however, been found possible to make, it would appear that quite a large proportion of the workers are indebted and that the extent of indebtedness varies from Rs. 25|- to Rs. 200|- per worker. As will be clear from the sections dealing with wages, a vast majority of jute mill workers are to be found in the earning category Rs. 5—Rs. 6 per week and even taking into consideration the value of the food concessions which on an average, amounts to Rs. 1-4-0 per week, it is clear that at the present level of prices, this wage particularly for family men necessarily leave a deficit in the family budget. Moreover, since 1942, Bengal has been in the grip of pestilence add famine and the incidence of sickness has been extremely high. In the absence of any provision for sick pay, the workers are naturally forced to borrow during periods of sickness. It is true that the majority of the workers have some connection with lands in their villages. But that does not always mean that they own the land and, more often than not, instead of receiving income from agriculture, they have to meet certain incidental expenses regarding farming being done in the village by their relatives. Thus, on the wages they receive, there is little margin for saving and when, therefore, expenditure has to be incurred for certain conventional, although nonetheless obligatory necessities, such as marriages and funerals, the work has no option except to borrow money to meet these obligations.

Jute mill workers generally borrow money from sirdars, darwans, clerks, kabulis, etc. The usual rate of interest charged is 37½ per cent. to 75 per cent. Instances have been quoted of sirdars and kabulis charging as high a rate of interest as 150 per cent.

The Bengal Government passed a Bengal Money Lenders' Act in the year 1940, the main provisions of which are as follows :—

1. That every person carrying on money-lending business must register himself and take out a license,
2. that no document which does not state the actual amount of the loan and the rate of interest charged or in which any entry is left blank, should be taken from a borrower,
3. that no debtor will be required to pay more than the lowest amount as laid down in the Act,

4. that the maximum rate of interest allowable in the case of secured loans is 8 per cent., and in the case of unsecured loans, 10 per cent.,

5. that a creditor shall not molest a debtor in any way to enforce payment,

6. that the Act shall also apply to loans in kind,

7. that if any debtor has paid twice the original loan in payment of principal or interest or both, the loan will be cancelled and he will not be required to pay, any further sum, and

8. that no person will be liable to pay by way of interest any sum greater than the principal outstanding on a particular date.

It is, however, understood that the Act has not been a success as the borrowers themselves are unwilling to give evidence against lenders.

Housing.—Detailed statistical information relating to the housing of jute mill workers is not readily available but the Association, in their reply, have given the results of a very full survey which was made in 1937. The accommodation provided by individual employers varies widely from mill to mill both in regard to the number provided as also in relation to the number of workers employed in each mill. As compared to the pre-war period the position in regard to the housing provided by the employers has not materially altered except that a few mills have added a few rooms and quarters for the workers and effected some improvements in the designs. Information obtained by the Association from 61 mills shows that the percentage of workers housed by individual mills varies from 7.9 to 100 and the total number of rooms and quarters supplied by the mills for housing their work-people comes to about 42,466. Some of these rooms are, however, used for purposes other than living accommodation. The housing accommodation supplied by 61 mills is either of the *pucca* or *kutcha* type. In 37 mills supplying information regarding the housing of their workers, the position is as follows:

TABLE XI.

Percentage of workers housed.	Number of mills.
Nil	2
Above 0 up to 25	5
25 to 50	14
50 to 75	11
75 to 100	5
Total ..	37

Figures obtained during the present enquiry from 19 units providing housing accommodation to their workers show that only 39 per cent. of the total labour force in these units was housed by the employers. When there are private *bustees* round about the mills, the employers do not generally make any housing arrangements for their workers. Some of the mills situated outside Calcutta, however, have provided housing for about 50 per cent. of their employees as no private housing was easily available.

The housing provided by the employers is usually of the barrack back-to-back type of quarter. The average floor area of the quarters is approximately 10 square feet varying from minimum of 67.3 square feet to a maximum of 110.6 square feet. In the case of some units, however, the rooms are 13 ft. × 10 ft. or 12 ft. × 10 ft. Every type of quarter has a small verandah about 3 feet wide, a portion of which is used as a kitchen.

All pucca rooms are built of brick. Floors are made of brick cement or packed earth; walls are made of brick with sand plaster and roofs are made of beaten surki, reinforced concrete or asbestos corrugated sheets. The *kutcha* rooms have floors of earth, walls of mud-plastered split bamboo and roofs of tiles or thatching.

The following table furnished by the Association shows the distribution of the accommodation supplied according to floor space:

TABLE XII.

Floor space. Above upto (square ft.)	No. of rooms.	Percentage to total.
75— 80	9,143	42·1
80— 85	3,222	14·9
85— 90	4,722	21·7
90— 95	1,872	8·6
95 -100	1,437	6·6
100—105	485	2·2
105—110	717	3·3
110—115	134	0·6
Total ..	21,732	100·0

It will be seen from the above table that in nearly 94 per cent. of the cases, the floor space available to a worker and his family is less than 100 square feet. The rooms are also generally badly lighted and ventilation is altogether inadequate. The figures in the above table speak for themselves and any comment on over-crowding and congestion is, therefore, unnecessary.

Owing to the congestion and over-crowding in these quarters, weather permitting, workers prefer to sleep outside either on the ground or on charpois. Arrangements for latrines and urinals in these lines are extremely inadequate and one frequently sees queues waiting for their turn to visit the latrines. They are also kept in a most insanitary condition. In recent years some good housing colonies for jute mill workers have sprung up and one of the best is the Birla Jute Mills housing colony which houses about 43 per cent. of the employees of this mill in pucca quarters numbering about 1,200.

The system for the allocation of mill quarters varies from mill to mill and either of the following two methods is followed: to allot a quarter (1) on application, or (2) in rotation.

The following are some of the persons who are in charge of the allocation of these tenements:

Manager,
Assistant Manager,
Departmental head,
Doctor,
Engineer,
European Overseer,
Mill clerks, and
Head darwan

The danger involved in leaving the allocation of housing to be done by clerks or Darwans is obvious.

The effectiveness of the supervision of the housing colonies also differs very widely from mill to mill according to the type of staff entrusted with this work. For instance, some mills have a regular medical staff, sanitary inspectors or welfare officers for this purpose, while in other mills Darwans, Jamadars, Sirdars, Clerks or even sweepers are responsible for the cleanliness, sanitation, etc. of these colonies although, of course, the manager or the Engineer periodically supervises these lines.

There is no uniformity as regards the rent charged by the different mills. Rent is charged on a weekly or monthly basis, the latter system being the more common of the two. Rents of pucca rooms vary from annas three to rupees two per month and of *kutcha* rooms from annas two to annas twelve per month. In the case of a large proportion of tenements it would appear that the rent varies from annas eight to annas twelve per month.

Those not supplied with employers' housing live in bustees which have practically no plinth and are liable to be flooded during the rainy season. Most of these are huts containing two or three rooms. They are built of bamboo walls plastered with mud and covered on the top with grass of some type. Some others have roofs of corrugated iron sheets. A worker's family usually lives in one room in one of these. The dimensions of some of the rooms inspected were either 6 ft. × 8 ft. or 8 ft. × 8 ft. The surroundings were most filthy. There was practically no plinth. Stagnant water and heaps of rubbish could be seen all round. The inmates get their supply of drinking water from the street taps. Some type of latrines are constructed a few yards away from these tenements but they are generally in a stinking condition and most of the inmates and children use the open ground round about. In the midst of these *bustees* is usually an open tank with dirty water. This must be a fruitful source for breeding mosquitoes. These bustees are owned by private landlords. The rent of a room 8 ft. × 8 ft. is about Rs. 3|- per month. There is no system whatever on which these have been constructed and most of them are in low-lying areas. The flooring is generally *kutcha*.

The Royal Commission on Labour in India have referred to the overcrowding and congestion in certain parts of Howrah as being unequalled probably in any other industrial area in India. Since then, the housing conditions of jute mill workers in Bengal have not improved materially as will be seen from the above discussion. The *chawal* of Bombay or the *chatta* of Cawnpore is a mercy before some of the Bengal *bustees*.

It has been stated already that a large proportion of workers in jute mills live singly keeping their families in their villages. The unsatisfactory housing conditions in Calcutta have no doubt a great deal to do with this. The result is that the workers have to make periodical visits to their villages to meet their families thus causing dislocation in the work in the mills. Apart from this it is unnecessary to emphasise the dangers of men living singly among the temptations of a city life.

The Indian Jute Mills Association is one of the most powerful organisation of employers in this cuntry which has, for a long time now, been able to take concerted action regarding the hours of work, sealing of looms, etc. In regard to the housing of the workers, however, it would appear that the Association has not so far made any concerted effort, although it is gratifying to note that it has started taking steps to obtain expert advice on better standards of housing for their workers. The facts and figures quoted above seem clearly to indicate the urgent necessity oof the employers, the municipality and the

Government immediately undertaking measure to provide more adequate and sanitary dwellings for jute mill workers in Bengal.

Welfare work.—In Calcutta and the industrial area in which jute mills are situated labour welfare work is being carried out according to varying standards by individual mills. The Government of Bengal has also made a small beginning in this direction but as will be seen from the note in Appendix VIII it is not comparable with similar work that is being done by the Bombay Government either in scope or in extent. The Indian Jute Mills Association has recently taken considerable interest in the matter of labour welfare and has opened ten Welfare Centres in the different jute mill areas. It is understood that it is the policy of the Association to improve its welfare activities but they are greatly handicapped for want of open grounds for out-door recreation etc. In the Welfare Centres started by the Association provision is made for indoor recreation, literacy classes, amusements etc. Some of these centres are not too well attended because of the long working hours.

Most of the jute mills have dispensaries attached to them. The standard of medical relief offered to the workers varies greatly as between mill and mill. For instance, whereas the Angus Jute Mill has a well-equipped hospital for its employees and the Bally Jute mills, a Maternity Hospital for its female workers and have made excellent arrangements for medical relief, in the majority of the mills the dispensaries provided are not in a very satisfactory condition. The trouble seems to be that several of these are in charge of ill-paid doctors earning about Rs. 100|- per month. Nor are the dispensaries well laid-out so as to ensure privacy during medical examination etc.

Many workers seem to have no confidence either in the Medical Officer or in the medicines given at these dispensaries and that is one of the reasons why they resort to all types of quacks. Nor are satisfactory records maintained of the cases treated at these dispensaries although, recently the Indian Jute Mills Association have initiated a scheme whereby all member-mills would be required to submit a record of cases treated in their dispensaries in a prescribed form.

The Indian Jute Mills Association subscribe considerable amounts to various hospitals in Bengal. Owing to the large growth in the population, however, it is understood that there is great difficulty for the workers in jute mills to get admitted to public hospitals.

Ante-natal clinics have been started by some of the jute mills.

About twenty mills have provided creches. Here again, the standards of maintenance, equipment, cleanliness, etc. vary considerably. Some of them are well-equipped with cradles, while the equipment in others leaves much to be desired. There appears to be a great need for starting creches in other mills, as women are employed to a considerable extent. Cases have been reported of mothers doping their babies with opium to keep them quiet during the time that they are at work.

Canteens.—Only a few mills have started canteens where light refreshments and tea are served. It is understood that in the initial stages considerable difficulties were experienced in running the canteens owing to factors relating to caste, different dietary habits of the workers etc. One mill has now introduced the system of serving cooked meal in its canteen. Some mills run their own tea canteens, while others have licensed vendors under the supervision of the management. In some cases the mills allow outsiders to sell tea and light refreshments in the precincts of the mills. One mill supplies tea to its workers at 50 per cent. of the market price.

Schools.—Some mills have established schools for the children of their operatives but many others only make contributions to local schools in the neighbourhood. The management of the Birla Jute Mills, however, have set up two night schools for the education of the adult workers and books, stationery, etc. are supplied free. There are also two Primary Schools and a High School for the education of the children of their operatives. One of the mills provides free primary education to muslim boys only. No classes have been organised for education of adult workers except at 3 or 4 Welfare Centres of the Association where attempts are being made in this respect. Speaking generally, the facilities provided for the education of the children of the operatives are very poor.

In recent years the mills have been paying attention to the organisation of out-door sports for their operatives. The most popular game in Bengal is foot-ball. Foot-ball leagues have been organised among the different mill groups. A wider extension of this activity has, however, been prevented due to lack of suitable playing fields. Owing to the peculiar conditions prevailing in Bengal recently, many of the foot-ball grounds had to be requisitioned by the A.R.P. for building slit trenches.

A number of mills possess Radio sets.

Grain shops.—Since the introduction of rationing, all the jute mills have established grain shops for their workers. There are, however, loud complaints about the quality of the grains made available. In regard to rice, it was often found mixed with other ingredients. As a matter of fact, the bad quality of the grains was responsible for a number of strikes, although the managements stated that they were helpless in the matter. It is also reported that no proper arrangements are made for the workers to receive their rations from these shops and they have to wait for a long time either in the rain or in the sun to obtain their ration.

Reference has already been made to the prices charged at these shops for the articles sold.

Other welfare activities include Savings Bank, Co-operative Credit Societies and Benevolent Funds. Interest varying from 3 per cent. to 6¼ per cent. is allowed on deposits made by workers in the Savings Bank as a measure of encouraging thrift.

Pension and Gratuity schemes.—Out of the 101 jute mills in Bengal, only about 22 mills have made some provision for the future of their operatives. This takes the form either of granting old age pensions and/or gratuities.

The conditions attached to the grant of pensions and gratuities vary from concern to concern and no worker seems entitled to them only by the nature of the length of his service alone. The maximum period of service fixed by most of the mills is 30 years. In one concern only it was found that 15 years' service was a qualifying period for pension or gratuity. In order to qualify for a pension or a gratuity, apart from length of service, the workers have to fulfil conditions, such as loyalty, spotless character, incapacitation for further work, etc. Before applying for a gratuity or pension, workers have to appear before a Medical officer of the factory and the decision of the medical officer is final.

The scale of gratuity varies from mill to mill. Some mills pay to their workers, by way of gratuity, two weeks' earnings for each year of service.

An important group of mills pays for long and faithful service a weekly subsistence allowance of Rs. 2-8-0 to male workers and Rs. 2-2-0 to female workers on retirement.

It is understood that the Association have under consideration a Scheme under which male and female workers, having continuous service may be granted a gratuity equal to two weeks' wages per year for every year of service put in by the operative. This will be a step forward because at present the position is that in the case of the bulk of the jute mill operatives their future is entirely unprovided for.

Trade Unionism and Strikes.—Nearly one-fifth of the jute mill operatives are members of Trade Unions of which there were 63 in June 1945. There is no single organisation to which these Unions are affiliated. In fact, there are three distinct organisations, namely, the Trade Union Congress, the Bengal National Chamber of Labour and the Indian Federation of Labour to which these Unions are affiliated. The size of the Unions varies from 100 members to 10,000 members. The following summary statement shows the number of Unions with their memberships affiliated to each of these bodies :

TABLE XIII

Number of Unions.	Organisations to which they are affiliated.	Membership.
18	Trade Union Congress	26,462
31	Bengal National Chamber of Labour	15,273
7	Indian Federation of Labour	4,090
7	Non-party	1,872
Total .. 63	Total ..	47,697

It will be seen that although only 18 Unions are affiliated to the Trade Union Congress, they account for nearly half the membership of Jute Mill workers' unions. In this connection it is important to remember that membership figures of Trade Unions, are not always very reliable.

The Unions are to be found in the following industrial areas:

Calcutta, Howrah, Hooghly, Barrackpore, and Budge Budge.

The highest number of Unions is to be found in Barrackpore, where there are no fewer than 24 with a membership of nearly 13,000. In the Calcutta area there are only six Unions with a membership of over 13,000.

There is no uniformity of principle or policy as between the different organisations to which jute mill workers belong. It is significant that during the period when the workers have the largest number of grievances, Unions spring up. For instance, in the year 1937, when there was a general strike in the industry, no fewer than 23 new Unions were registered with a membership of about 10,000 workers. Similarly also in the year 1943, when Bengal was in the grip of epidemics and famines, 18 new Unions were registered with a

membership of about 21,000 workers. The following table shows the number of Unions and their memberships from 1928 onwards :

TABLE XIV

Year.	No. of Unions registered.	Membership.
1928	1	1,183
1929-35	..	..
1936	1	4,560
1937	23	9,950
1938	..	..
1939	2	1,686
1940	1	236
1941	1	10,000
1942	2	2,091
1943	18	20,961
1944	12	5,830
June 1945	2	200
Total ..	63	56,697

There is no doubt that Trade Unionism in the jute mill industry, as in most of the other industries in the country, is in an extremely weak condition. Apart from the fact that spiritual value of Trade Unionism has still to be appreciated by the average Indian worker, so far as Bengal is concerned, there are several factors which come in the way of the workers' organisation. First of all, the population employed in jute mills is of a most heterogenous character; secondly, there is no effective leadership. Moreover, although there may be no open hostility on the part of the employers to Trade Unionism as such, there is no evidence to suggest that any encouragement has been given to the workers to form themselves into Unions. It is understood that until recently victimisation on account of workers' membership of a Trade Union was by no means unknown.

Strikes.—No reliable statistics of industrial disputes in the jute mill industry are available. But the Jute Mills Association maintain register of all strikes of more than a day's duration. The following table compiled from the Annual Report of the Indian Jute Mills Association is of interest :*

TABLE XV.

Strikes in the Jute Mill Industry in Bengal.

Year.	No. of strikes.	Man-hours lost.
1938	36	1,50,12,213
1939	25	81,74,471
1940	11	40,65,754
1941	7	30,78,783
1942	25	75,54,464
1943	23	35,18,946
1944(*a*)	23	49,95,910

* Report of the Indian Jute Mills Association for the year ended 31st December 1942—page 42.
(*a*) Finished by the Labour Commissioner, Bengal.

CHAPTER III.--UNITED PROVINCES—Cawnpore.

Employment.—There are at Cawnpore in the United Provinces two jute mills. At the time of the enquiry, the number of persons employed in these was 7,264. One of these is a very large unit which employed in August 1944, 5,645 persons. In this unit employment, as compared to the pre-war period, has more than doubled. In the other unit, however, the number employed has risen by only about 100 persons.

Labour is recruited directly by the managements and no contract labour is employed. In the smaller unit it is the sirdar who is more or less responsible for fresh engagements.

Working conditions, Hours of work and shifts.—In one of these units the working conditions are extremely satisfactory. The machinery is so arranged that no time has to be wasted in carrying the production of one department to another. The departments are also very well lighted and ventilated.

Both the units work two shifts—a day shift and a night shift of 9 hours each. The shift hours in these two units are as follows :

Day shift.—A. 7 a.m. to 1 p.m. and 2 p.m. to 5 p.m.

B. 8 a.m. to 1 p.m. and 2 p.m. to 6 p.m.

Night shift.—5 p.m. to 11 p.m. and 12 m.n. to 3 a.m.

In one of these units, however, the weaving department works for 12 hours and with relay system. In one unit, there is a weekly change-over of shifts, while in the other it is fortnightly.

In neither of the units are there rest shelters for the operatives. It is understood that owing to lack of space the larger unit has been exempted from erecting shelters.

Both the units follow the Standing Orders for operatives adopted by the Northern India Employers' Association.

Sundays are closed holidays and the workers also get holidays on certain festivals.

On the whole, the arrangements for water supply and sanitation in the precincts of these factories are satisfactory.

Wages and Earnings.—In both the units covered for the purposes of the *ad hoc* survey in Cawnpore, a Wage Census was conducted for the month of March 1945, on the basis of a sample. The wage period covered was a fortnight in both cases, although it was not the same fortnight.

The results of the census have been presented in the following two tables, one giving the frequency distribution of wages and earnings in selected occupations and another containing the weighted averages of wages and earnings in the same occupations.

TABLE XVI

Frequency Table showing the number of workers in selected occupations in the daily basic wages and earnings groups in the jute mills in Cawnpore covered by the Wage Census.

Occupations.	Number of Workers in the *Daily Basic Wage Groups.*									Number of Workers in the *Daily Net Earning Groups.*					
	Under As. 4.	As. 4 & under As. 6.	As. 6 & under As. 8.	As. 8 & under As. 10.	As. 10 & under As. 12.	As. 12 & under As. 14.	As. 14 & under Re. 1.	Re. 1 & under Rs. 1-2.	Rs. 1-2 & under Rs. 1-4.	Under Re. 1.	Re. 1 & under Rs. 1-4.	Rs. 1-4 & under Rs. 1-8.	Rs. 1-8 & under Rs. 1-12.	Rs. 1-12 & under Rs. 2.	Rs. 2 & over.
Jute Selectors	..	..	..	..	..	..	..	43	..	..	..	..	43	..	..
Cutters	..	..	..	111	..	..	..	..	..	..	111	..	..	..	..
Softener Feeders and Receivers	..	..	28	48	..	..	..	..	..	..	76	..	..	..	..
Teasermen	..	..	..	30	..	..	..	..	..	..	30	..	..	..	..
Breaker feeders & receivers	..	..	116	..	..	..	..	..	..	..	116	..	..	..	..
Finisher feeders & receivers	..	..	121	..	..	..	..	..	..	..	121	..	..	..	..
Drawing feeders & receivers	..	..	272	..	..	..	..	..	..	..	272	..	..	..	..
Roving feeders	..	..	21	87	..	..	..	..	..	..	21	87	..	..	..
Rovers	..	..	..	..	49	..	18	..	..	..	..	49	18	..	..
Roving shifters	..	..	138	..	..	..	..	..	..	..	138	..	..	..	..
Spinners	..	..	..	..	790	..	..	..	..	..	..	790	..	..	..
Spinning shifters	..	..	601	..	..	..	..	..	..	..	601	..	..	..	..
Cop winders	..	..	..	..	373	..	..	..	..	..	..	375	..	..	..
Warp or Roll winders	..	..	..	304	..	..	..	..	..	..	74	320	..	..	..
Beamers	..	..	..	..	..	..	..	..	43	..	..	..	..	43	..
Weavers	..	..	..	..	..	..	1,163	303	..	..	..	..	1,466	..	..
Machine Sewers	..	..	..	..	..	218	..	..	33	..	..	218	..	33	..
Hand Sewers	..	15	216	45	..	..	..	..	..	..	276	..	..	..	..
Coolies	..	..	305	193	..	..	..	..	..	..	498	..	..	..	..
Total	..	15	1,818	908	1,214	218	1,181	346	76	..	2,334	1,839	1,527	76	..
Percentage to Total	..	0·26%	31·47%	15·72%	21·02%	3·77%	20·45%	5·99%	1·32%	..	40·41%	31·84%	26·44%	1·31%	..

TABLE XVII

Table showing wages and earnings in selected occupations in the second fortnight of March, 1945, in the Jute Mills in Cawnpore (United Provinces) covered by the Wage Census.

Occupations.	Sex.	Piece or Time (P or T).	Number of Hours of work per shift.	Number of workers.	Average daily basic wages earned.	Average daily gross earnings including overtime, allowances and bonuses.	Average daily net earnings including overtime allowances and bonuses.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
Jute Assorters	Males	P	9 hours	43	1 1 2	1 11 11	1 11 11
Cutters	M	T	,,	111	0 8 9	1 3 6	1 3 6
Softener feeders & receivers ..	M	T	,,	76	0 8 4	1 3 2	1 3 2
Teasermen	M	T	,,	30	0 9 2	1 3 11	1 3 11
Breaker feeders & receivers ..	M	T	,,	65	0 7 3	1 2 0	1 2 0
Do. ..	F	T	,,	51	0 7 3	1 2 0	1 2 0
Finishing feeders & receivers ..	M	T	,,	92	0 7 0	1 1 10	1 1 10
Do. ..	F	T	,,	29	0 7 0	1 1 9	1 1 9
Drawing feeders & receivers ..	M	T	,,	222	0 7 0	1 1 9	1 1 9
Do. ..	F	T	,,	50	0 6 9	1 1 6	1 1 6
Roving feeders	M	T	,,	21	0 6 9	1 1 6	1 1 6
Do.	M	P	,,	62	0 9 3	1 4 0	1 4 0
Do.	F	P	,,	25	0 8 11	1 3 8	1 3 8
Rovers	M	P	,,	62	0 12 10	1 7 7	1 7 7
Do.	M	T	,,	5	0 10 7	1 5 6	1 5 6
Roving shifters	M	T	,,	138	0 6 9	1 1 7	1 1 7
Spinners	M	T	,,	790	0 11 0	1 6 0	1 6 0
Spinning shifters	M	T	,,	601	0 6 8	1 1 7	1 1 7
Roll winders	M	P	,,	394	0 9 4	1 4 1	1 4 1
Cop winders	M	P	,,	375	0 10 1	1 4 11	1 4 11
Weavers	M	P	,,	1,466	1 0 0	1 10 8	1 10 8
Hemmers	M	P	,,	251	0 13 8	1 8 6	1 8 6
Hand Sewers	M	P	,,	155	0 7 10	1 2 7	1 2 7
Hand Sewers	F	P	,,	121	0 6 11	1 1 8	1 1 8
Beamers	M	T	,,	43	1 3 7	1 14 5	1 14 5
Coolies	M	T	,,	249	0 7 7	1 2 5	1 2 5
Do.	M	P	,,	249	0 6 8	1 1 5	1 1 5
Total ..	..	..	..	5,776	..	..	..

So far as wages are concerned, it will be seen that 31.73 per cent. are in receipt of a basic wage of less than annas 8 per day, 36.74 per cent. earn between as. 8 to as. 12 per day, 24.22 per cent. between as. 12 to Re. 1 per day and 7.31 per cent. receive a basic wage of Re. 1 and over.

As regards earnings, it will be seen that there is a wide difference between the basic wages earned and the total earnings which include allowances, such as dearness allowance, overtime pay, etc. Not a single worker earns less than a rupee per day. The earnings of all the workers appear to fall within four groups with an interval of as. 4, namely, Re. 1 to Rs. 2. 40.41 per cent. earn Re. 1 to Rs. 1|4|- per day, 31.84 per cent. earn Rs. 1|4|- to Rs. 1|8- per day, 26.44 per cent. earn Rs. 1|8|- to Rs. 1|12|- per day and only 1.31 per cent. earn Rs. 1|12|- to Rs. 2 per day.

As regards basic wages and earnings in selected occupations, the above table contains weighted averages for these two units for the selected important occupations. Weavers earn a basic wage of Re. 1 per day, their average daily earning being Rs. 1|10|8. The average basic wage of a spinner is as. 11 per day, his daily earning being Rs. 1|6|-. Spinning shifters have a basic wage of only -|6|8 per day, their average daily earning being Rs. 1|1|7. The average basic wage of a cop winder is Re. -|10|1, his average daily earning being Rs. 1|4|11. Coolies who form a considerable proportion of the labour force employed have a daily basic wage of Re. -|7|7 for time-workers and Re. -|6|8 for piece-workers, their average daily earnings being Rs. 1|2|5 and Rs. 1|1|5 respectively.

As will be seen from the table in appendix IX there are no marked variations in the basic rates of wages as between these two units. Curiously enough, in some occupations in one unit, the wage rates are higher than in the other and the reverse is the case in respect of certain other occupations. In spite of the fact, however, that there are differences in the basic wage rates in certain occupations in the two units, the average earnings in the case of both the units in the different occupations are more or less the same as the rate of dearness allowance paid in both is uniform and as also the amount of the dearness allowance is very much more than the basic wage in some cases. For instance, while the average basic wage for drawing receivers and feeders comes to as. 7 per day, their average daily earning comes to Rs. 1|1|9.

One of the units stated that there were slight increases in the wage rates particularly in the major occupations, as compared to the pre-war period. In the other and the larger unit there were no such changes.

Dearness Allowance.—Both these units pay dearness allowance according to the scale adopted by the Employers' Association of Northern India which is as follows :

TABLE XVIII

	Cost of Living Index.					
1	2	3	4	5	6	7
Wage category.	Above 100 but not exceeding 120.	121 to 140	141 to 160	161 to 180	181 to 200	up to 310.
	(annas in the rupee).					
Under Rs. 14 ..	2	4	5	7	Col. 5 or min. of as. 5.	Col. 6 plus one pie point of
Rs. 14 to Rs. 18 ..	1½	3	4	6	per worker per day	increase beyond 200 per
Rs. 18 to Rs. 24 ..	1	2½	3½	5	(equivalent of a min.	worker per day (calculated
Rs. 24 to Rs. 30 ..	¾	2¼	3¼	4¾	of Rs. 8-2 p. m. of 26	to the nearest anna).
Rs. 30 to Rs. 75 ..	½	2	3	4	working days) which-	
Rs. 75 to Rs. 150 ..	..	1½	2½	3	ever is greater.	

The amount payable by way of dearness allowance was for the month of January 1945, Rs. 23|7|0.

Since 1938, a regular attendance bonus of annas 8 to spinners and as. 2 to doffers per fortnight, is being paid in the smaller unit.

Both these units also pay a profit bonus as decided by the Employers' Association of Northern India. The bonus for the year 1944 amounted to two months' basic wages. The conditions for the payment of the bonus were that workers should have put in a year's service and remain on the roll at the time of payment.

In both cases the wage period is fortnightly and wages are paid within ten days of their becoming due.

Housing.—The larger of the two units has stated that they have a housing colony for workers under construction. The other unit has provided accommodation for about 125 workers in double-storeyed chawls. Most of these quarters contain a room 10 ft. × 12 ft. in size with a verandah. Those living on the first floor, however, do not get advantage of the verandah. The rent charged varies from Re. 1 to Rs. 3 per month. There are common arrangements for water taps and latrines. Considering the present day congestion in Cawnpore, the housing accommodation provided is not too unsatisfactory.

Welfare activities.—Both the factories maintain dispensaries, one in-charge of a full-time doctor and another of a part-time one. The larger unit has employed in its dispensary five compounders as well. Treatment is given to the workers free of charge. Both the units maintain grain shops where commodities are sold at prices fixed by the Employers' Association of Northern India. These are cheaper than market prices. One of the units has stated that the loss to the mill on the grain shop is about a rupee per worker per month.

The larger unit has a Primary School for the education of adult workers.

The bigger unit employs a Labour Officer to look into the grievances of the workers.

No regular provision exists in either of these units for safeguarding the future of the workers, although in one of the units small pensions are given to a few workers at the discretion of the management.

CHAPTER IV.—MADRAS PRESIDENCY—(South India).

There are four Jute Mills in the Madras Presidency employing about 6,500 persons. Two of these are small units. The larger units of the industry, namely, the one at Chitavalsah employing about 3,000 persons and the other at Nellimarla employing about 2,000 workers have been covered for purposes of this survey. These two factories account for about 77 per cent. of the total labour force employed in the jute mills in South India.

As both these units are under the same management and the wage rates prevailing in them are more or less the same, the discussion of wages and earnings is given at the end of this section.

A.—Chitavalsah.

A Chitavalsah is a village in the Bimlipatam taluk in the Vizagapatam district with a population of about 5,000 persons. This is practically a Jute village.

This factory began as an Indigo factory, was converted into a sugar factory and has now become a jute mill. Messrs. McLeod & Co., Ltd., Calcutta, are the Managing Agents. It is a member of the Indian Jute Mills Association, Calcutta.

Jute is grown in the vicinity of the village in which this factory is situated, but because of its poor quality only a small percentage of it is used by the factory, the rest being obtained from Bengal.

The factory has 13,864 spindles and about 5,000 power looms.

Employment.—The employment in this factory has risen by about 3 per cent. as compared to the pre-war period. The number of workers employed in January 1944, was 3,030. Only 470 women are employed. There is no employment of children.

Only about 32 to 40 workers are recruited through contractors mostly for bringing jute to the factory and for packing gunnies. The management exercises no control over the conditions of work and wages of contract labour.

Labour is drawn mostly from the surrounding villages and some locally. Recruitment is made by the management directly at the gates. The labour force is steady, although recently, owing to the attraction of high wages offered by the companies at Vizagapatam, there is a tendency on the part of some of the skilled workers to migrate. The company maintains about 300 to 400 badlis to work in place of absentees. They are given the concession of cheap grain.

Absenteeism varies from 10 to 15 per cent. It is highest on the day following the pay day and also during the ploughing and harvesting seasons.

There is very little labour turnover in this factory as there are no alternative sources of employment nearby. An examination of the service records of the workers shows that nearly 50 per cent. have a service above 10 years, 31 per cent. between 5 and 10 years and the rest below 5 years. The factory maintains a complete record card for each employee giving all the particulars relating to him.

All the workers on the muster rolls are treated as permanent. There is no qualifying period for permanency.

There is no regular system of apprenticeship but, in the weaving department, new recruits are given training for two to three months and are paid learner's wages of about 5-1|2 annas per day plus bonus. The mill has "Standing Rules for Operatives" which cover questions regarding attendance, leave, holidays, wages, etc.

The workers in this factory are given ten holidays with pay in a year.

Working conditions.—The factory is well ventilated and lighted. The machinery is kept clean and there is enough moving space for the operatives. The workers are supplied with chlorinated water and the sanitary arrangements are satisfactory.

A Labour Conciliation Officer has been appointed to look into the grievances of the work people.

Hours of work and shifts.—Only one shift per day is worked. The number of working hours is 10, the spread-over being 11 hours. The working hours are 7.15 a.m. to 12.15 p.m. and 1.45 p.m. to 6.45 p.m. On Saturdays the interval is reduced by 15 minutes and the closing hour is 6.30 p.m. instead of 6.45 p.m. Sundays are usually closed days.

Three spacious rest sheds are provided for the use of the workers. These are fitted with water taps. It is, however, understood that the workers do not make much use of these sheds.

Wages and earnings.— The basic wages in this factory were increased by 10 per cent. soon after the outbreak of the War, presumably in accordance with the decision of the Indian Jute Mills Association. The wages are fixed on the basis of a ten-hour day.

A Wage Census was conducted in this factory on the basis of a sample and the following statement contains information regarding wages and earnings in principal occupations.

TABLE XIX

Table showing wages and earnings in selected occupations in January 1944 in the Jute Mills at Chitavatsah, Vizagpatam district, Madras Presidency (South India).

Occupations.	Sex.	Piece (P) or Time (T).	Number of Hours of work.	Number of workers.	Average daily basic wages earned.	Average daily gross earnings including overtime, allowances, bonuses.	Average daily net earnings including overtime, allowances, bonuses.	Actual average net earnings in the wage period.	Average basic wages earned by samples with full attendance.	Average net earnings in the wage period of samples with full attendance.	Number of working days in the wage period.
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Jute selectors	M	T	10	19	0 11 4	0 14 10	0 14 10	22 7 7	16 4 8	24 4 3	23
Jute cutters	M	T	10	45	0 9 9	0 13 3	0 13 3	20 2 6	14 0 3	21 10 0	23
Softener feeders and receivers ..	M	T	10	35	0 8 11	0 12 6	0 12 6	18 9 10	12 13 1	20 4 0	23
Teaser feeders and receivers ..	M	T	10	4	0 8 11	0 12 5	0 12 5	18 15 10	12 13 1	20 4 0	23
Breaker feeders and receivers ..	F	T	10	138	0 7 4	0 10 3	0 10 3	15 7 11	10 9 2	17 10 5	23
Drawing feeders and receivers ..	F	T	10	132	0 7 3	0 10 11	0 10 11	17 0 4	10 8 10	17 10 3	23
Roving feeders	M	T	10	24	0 8 11	0 12 4	0 12 4	18 0 7	12 13 1	20 2 6	23
	F	T	10	22	0 7 6	0 10 10	0 10 10	16 15 7	10 12 6	17 14 3	23
Rovers	M	T	10	38	0 10 6	0 14 0	0 14 0	21 8 1	15 5 4	23 2 6	23
Roving shifters	M	T	10	47	0 7 4	0 10 9	0 10 9	16 4 2	10 8 8	17 9 9	23
Spinners	M	T	10	269	0 12 2	0 15 9	0 15 9	24 10 0	17 8 7	25 9 7	23
Spinning shifters	M	T	10	224	0 7 4	0 10 10	0 10 10	16 4 5	10 8 8	17 9 9	23
Cop winders	M	P	10	100	0 10 0	0 15 8	0 15 8	20 3 8	15 1 7	23 0 2	23
Warp winders	M	P	10	28	0 8 0	0 13 9	0 13 9	17 4 5	11 11 9	19 0 1	23
	F	P	10	40	0 7 8	0 11 2	0 11 2	17 5 0	11 10 7	18 13 5	23
Beamers	M	P	10	51	0 12 1	1 1 10	1 1 10	24 8 8	17 4 0	25 9 0	23
Weavers	M	P	10	500	1 1 1	1 6 4	1 6 4	34 15 0	24 7 7	36 10 3	23
Coolies	M	T	10	165	0 8 11	0 12 4	0 12 4	18 4 7	12 13 1	20 4 0	23
Coolies	F	T	10	4	0 7 0	0 10 6	0 10 6	16 0 0	..	..	23
		Total ..		1,885							
		Total No. of samples		560							

Dearness allowance.—A cash dearness allowance of Re. 1 per month was first paid in June 1941. Since 4th December 1944, the rate of dearness allowance is Rs. 2 per month only. The mill has a system of paying production bonus in some of the departments. For instance, a production bonus is paid to sirdars in the Beaming and Weaving departments as also to weavers.

This factory does not pay any profit or prosperity bonus.

No fines are imposed.

The wage period is a month for all the workers and wages are paid before the 10th of the following month to which they relate.

Housing.—Nearly 25 per cent. of the workers are housed by the Company. The total number of houses constructed is 487, all of which (excepting 8) consist of single rooms with a small verandah in front. Most of these houses are built of mud walls but are well plastered, with roofs of either country or quilon tiles. The flooring is of mud. The workers' quarters are built in lines. There are 26 such lines. Common latrines are provided at the end of each line with a partition in the middle for males and females. It is understood that the latrines are not used by the workers who prefer the open fields.

The rent of the single-room quarters is annas 6 to 8 per month.

The number of persons living in each worker's quarter varies from two to six. On the whole, the housing colony is clean and well maintained, although the dwelling accommodation for a family is somewhat inadequate as most of the rooms are only 16 ft. × 11 ft. in dimension.

The Company has framed certain rules for the allotment of the company's houses and these have been incorporated in the Standing Rules for the operatives. It would appear from these Rules that the occupants of the quarters " may be turned out by the company at any time on 15 days' notice, and for this purpose the company by its Mill Manager or other officer appointed by him shall, with or without servants or workmen, be entitled to enter the same at any hour during day light to reoccupy the same". The occupants have also to report to the manager of the mill all cases of cholera, small-pox or other infectious diseases. The workmen living in these quarters do not seem to possess any tenancy rights because according to these rules " the occupation of a house by an employee shall not constitute him a tenant and the monthly payment by him shall not be a rent but only a charge for use and occupation, which monthly payment shall be made in advance on the 1st or 16th day of each month ".

Welfare work.—The mill maintains two dispensaries, one within the precincts of the factory and the other outside. These dispensaries are in charge of a full-time qualified doctor. Both the workers and their families can take advantage of these dispensaries. The factory has erected a creche with a number of cradles for the female workers' children.

There is a school up to the 5th Standard which is run by the mill. It is attended by about 140 children. The factory has a workers' Store in which essential foodgrains, kerosene oil, etc., are supplied at concession rates. It is understood that the savings to the worker on account of supply of foodgrain at concession rates comes to Rs. 1-12-0 to 2-0-0 per month. A recreational club has been built for indoor games with a Reading Room.

A building for a canteen is under construction.

No provision for the future of the workers appears to have been made, although there is a Provident Fund Scheme for the office staff. No Service Gratuity is paid to the workers.

There have been no strikes in this factory in recent years. There is a Registered Union of the mill workers in this factory but, it is understood that it is not very influential.

The provisions of the various Labour Acts are strictly enforced. In 1939, there were 37 maternity benefit cases and the benefit paid amounted to Rs. 924-8-0.

Although the standard of living of the workers in this factory appears to be low, on the whole, they seem contented and are comparatively free from need. The village has not still attracted the attention of money-lenders.

On the whole, the labour force is stable and the level of wages obtaining in this factory is almost similar to that in Bengal mills. The rate of dearness allowance, namely, Rs. 2 per month, is the same as the one recommended by the Jute Mills Association. In spite of the fact that the mill has been doing well as a result of the conditions created by the War, no profit or prosperity bonus is being paid. Speaking generally, this factory has made good arrangements for welfare of labour. No provision, however, exists for safeguarding the future of the employees. The housing conditions cannot be regarded as unsatisfactory, although living accommodation provided for individual families is inadequate and the conditions governing occupancy seem to be severe. One of the reasons for the stability and contentment of the labour force in this factory was the absence until recently of alternative sources of employment in the neighbourhood.

B.—Nellimarla.

There is a Jute Mill at Nellimarla in the Vizagapatam district. It was established in 1921. The management changed hands just before the War and at present it belongs to Messrs. McLeod & Co., Ltd., Calcutta, who are the Managing Agents.

The mill consists of about 8,800 spindles and 365 looms. It employs 2,023 workers, 1,736 males and 292 females. Employment has increased slightly as compared to the pre-war period. No children are employed. All the workers except about 50 are permanent. Temporary workers have the same privileges as permanent workers except that they are not entitled to housing accommodation in the company's quaters.

The factory also maintains a labour force of about 300 *badlies* to work in place of absentees. The badli labour gets the cheap grain concession. The labour is employed directly except for about 100 workers who are recruited through contractors. Such labour is engaged in unloading jute, coal and wood from wagons and for the pressing of bales. The company does not exercise any control over the conditions of work and wages of such labour.

The workers in this factory come from the surrounding villages and are recruited directly at the gates. There is no shortage of labour in this area.

During the agricultural season the percentage of absenteeism is higher and comes to 9.23, but during other months it is much less. It is reported that the turnover of labour is about 3 to 4 per cent. only.

An analysis of the length of service of the workers in this factory reveals that nearly 70 per cent. have had a service of over 10 years, 21.4 per cent. between 1 and 5 years and the rest below one year.

There is no regular system of apprenticeship but as in the Chitavalsah Jute mill, workers in the weaving and spinning departments are given training for two or three months during which period they are given learner's wages at the rate of annas 5 pies 6 and annas 9 per day respectively.

Working conditions.—Ventilation and lighting inside the departments of the mill are satisfactory. The departments are kept clean and there is enough moving space for the workers. In order to protect the workers against heat sprinklers are fitted up on the roofs, which spray cold water in all directions. In the Beaming department, exhaust fans are installed for removal of dust from the machines.

Two spacious rest shelters have been provided for the workmen. Taps have been supplied near the departments for the provision of drinking water. The sanitary arrangements are satisfactory.

Hours of work and shifts.—Only one straight shift of 10 hours is worked in all the departments except the Boiler rooms. The working hours are—7.30 a.m. to 12.30 p.m. and 1.30 p.m. to 6.30 p.m.

There are Standing Orders for operatives which are the same as those for workers in the Chitavalsah Jute Mill. There is an Assistant Labour Officer in the mill who is called an Assistant Conciliation Officer. His function is to enquire into the workers' grievances and to intervene when there is any dispute. He acts as a liaison officer between the management and the workers.

Wages and earnings.—Although this mill is under the same management as the one at Chitavalsah, there are slight differences in the wage rates particularly the piece rates. The explanation for this is that the workers desired that the wages paid should be the same as those paid by the previous management. The variation, however, is slight.

The following table contains the results of the Wage Census which was taken in this factory for the month of January 1944 :

TABLE XX

Table showing wages and earnings in January 1944 in selected occupations in the Jute Mill at Nellimarla, Vizagapatam district, Madras Presidency.

Occupation.	Sex.	Piece (P) or Time (T).	Number of Hours of work per shift.	Number of workers.	Average daily basic wages earned.	Average daily gross earnings including overtime, allowances, bonuses.	Average daily net earnings including overtime, allowances, bonuses.	Actual average net earnings in the wage period.	Average basic wages earned in the wage period by samples with full attendance.	Average net earnings in the wage period of samples with full attendance.	Number of working days in the wage period.
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Jute selectors	M	T	10	5	0 11 4	1 1 1	1 1 1	22 13 8	16 5 7	24 5 4	23
	F	P	10	15	0 7 10	0 11 4	0 11 4	16 0 7	11 4 4	18 7 9	23
Jute Cutters	M	T	10	22	0 9 9	0 13 4	0 13 4	21 5 2	14 0 3	21 10 0	23
Softener feeders and receivers ..	M	T	10	26	0 8 10	0 12 5	0 12 5	18 14 5	12 11 2	20 1 9	23
	F	T	10	4	0 6 11	0 10 4	0 10 4	6 10 8	9 15 1	16 14 9	23
Teaser feeders and receivers ..	F	T	10	13	0 7 6	0 11 0	0 11 0	17 4 4	10 12 6	17 14 3	23
Breaker feeders and receivers ..	M	T	10	14	0 7 1	0 12 3	0 12 3	16 15 9	10 1 6	17 1 6	23
	F	T	10	74	0 7 3	0 11 0	0 11 0	17 1 3	10 7 8	17 8 8	23
Drawing feeders and receivers ..	M	T	10	15	0 7 2	0 10 8	0 10 8	16 8 2	10 11 1	17 0 6	23
	F	T	10	65	0 7 3	0 10 9	0 10 9	16 8 7	10 7 3	17 8 3	23
Roving feeders	M	T	10	11	0 8 10	0 12 4	0 12 4	19 4 9	12 11 2	20 1 9	23
	F	T	10	16	0 7 6	0 11 0	0 11 0	16 14 10	10 12 6	17 14 3	23
Rovers	M	T	10	18	0 11 2	0 14 9	0 14 9	22 3 8	16 0 10	23 15 9	23
Roving shifters	M	T	10	40	0 7 4	0 10 9	0 10 9	15 12 3	10 8 8	17 9 9	23
Spinners	M	T	10	199	0 12 4	0 15 9	0 15 9	23 10 0	18 5 10	26 10 4	23
Spinning shifters	M	T	10	147	0 7 4	0 10 9	0 10 9	15 8 1	10 8 8	17 9 6	23
Cop winders	M	P	10	43	0 14 0	1 1 7	1 1 7	25 12 3	20 3 7	28 14 4	23
Warp winders	M	P	10	28	0 8 8	0 12 1	0 12 1	17 10 5	12 8 3	19 12 6	23
	F	P	10	20	0 9 0	0 12 6	0 12 6	19 8 3	13 8 9	21 1 5	23
Beamers	M	P	10	24	0 13 10	1 1 6	1 1 6	25 14 6	19 8 8	27 15 7	23
Weavers	M	P	10	313	1 1 9	1 6 10	1 6 10	34 7 9	25 2 11	37 10 3	23
Coolies	M	T	10	166	0 8 8	0 12 3	0 12 3	18 4 3	12 5 4	19 11 0	23
Coolies	F	T	10	4	0 6 11	0 10 2	0 10 2	15 14 6	9 15 1	16 14 9	23
		Total	..	1,282							

The basic wages have been increased by 10 per cent. since the outbreak of the present War.

Dearness allowance is paid at a flat rate of Rs. 2 per week.

Except for production bonus which is paid to Weaving and Beaming sirdars and to weavers, no bonus of any kind is being given.

The wage period is a month and the wages are paid within 10 days of their becoming due.

No fines are imposed.

Housing.—The factory has housing colonies in three villages (the west village, the east village and the north village) in the vicinity of the mills. In all 402 houses have been constructed. They are pucca structures with tiled roofing.

The quarters for the workers consist of 380 houses, each containing a room 12 ft. × 10 ft., a verandah 5 ft. × 12 ft., a kitchen 5 ft. × 12 ft. and a court-yard 8 ft. × 12 ft. There are common arrangement for supply of water and sanitation. Separate sanitary arrangements exist for males and females. On the whole, the sanitary arrangement seems to be satisfactory. Two to five persons live in each house and the rent charged is Re. 1 per month. The total number of workers housed is about 400 or 20 per cent. of the total labour force.

Workers not occupying the company's quarters live in thatched huts in their villages.

The conditions of occupancy are the same as in the Chitvalsah jute mill referred to already on pages 42 and 43 of this Report.

There is no demand for additional quarters as the workers prefer to live in their own villages.

Welfare work.—There is a dispensary attached to the mill in charge of a full-time doctor. There are two Welfare Clinics in the Company's villages. A Maternity Home has been constructed in the workers' colony with three beds. There is a Health Visitor, a Mid-Wife and an Ayah who visit the workers' colony daily.

Two schools have been started for the workers' children in the workers' colonies, in which instructions are imparted up to the 5th standard in one and upto the 2nd standard in another.

A recreation club and two foot-ball clubs have been started in the company's colonies.

The mill is running a cheap grain store in which essential commodities of consumption at controlled rates are sold to the workers. The benefit to the worker as compared to what he would have to pay in the bazaar amounts to Rs. 2 per month.

A creche and a canteen are under construction. There is a Welfare Committee in the mill consisting of leaders from each department with one of the mill office clerks as Secretary.

No provision has been made for the future of the operatives. Neither a Provident Fund Scheme nor a Gratuity Scheme is in operation. There is a Provident Fund Scheme but, it is open only to the office staff.

About 400 workers in this mill have organised themselves into a workers' Union which is registered under the Trade Union's Act. It is, however, not recognised by the management.

Wage Census.—Although the *ad hoc* survey relates to two large units only in the Madras Presidency (South India), a Wage Census was taken in all the four jute mills in South India. The census was taken on the basis of a

representative sample. The census period in all cases was the month of January 1944. In two cases, however, the number of working days in the month was 23, while in the cases of the other two, it was 6 and 4 respectively, the wage period being a week. The results of the census have been presented in two tables, one giving the frequency distribution of wages and earnings in important selected occupations and another giving the weighted averages of basic wages and earnings in selected occupations. The table in appendix X shows the wages and earnings separately in the four units.

It will be seen from the following table that so far as basic wages are concerned, 38.37 per cent. are in receipt of less than annas eight per day, 24.53 per cent. receive between annas 8 to annas 12 per day, 18.89 per cent., between as. 12 to Re. 1 per day and 18.21 per cent. above Re. 1 per day.

TABLE XXI

Frequency Table showing the number of workers in selected occupations in the daily basic wage and daily net earning groups in the Jute Mills in the Madras Presidency covered by the Wage Census.

Occupations.	Number of workers in *the daily basic wage groups.*								Number of workers in *the daily earning groups.*					
	Under As. 4.	As. 4 and under As. 6.	As. 6 and under As. 8.	As. 8 and under As. 10.	As. 10 and under As. 12.	As. 12 and under As. 14.	As. 14 and under Re. 1.	Re. 1 and Rs. 1-2.	Under As. 8.	As. 8 and under As. 12.	As. 12 and under Re. 1.	Re. 1 and under Rs. 1-4.	Rs. 1-4 and under Rs. 1-8.	Rs. 1-8 and over.
Jute selectors	..	13	23	..	24	..	..	..	21	15	19	5	..	..
Jute cutters	..	19	30	67	..	..	..	..	19	30	67	..	..	..
Softner feeders and receivers	..	11	4	61	..	..	..	..	11	4	61	..	..	..
Teaser feeders and receivers	..	6	13	4	..	..	..	..	6	13	4	..	..	..
Breaker feeders and receivers	..	8	226	..	..	..	..	..	8	212	14	..	..	..
Finisher feeders and receivers	..	5	..	..	..	..	..	..	..	5	..	..	..	..
Drawing feeders and receivers	..	12	212	..	..	..	..	..	12	212	..	..	..	..
Roving feeders	..	121	28	35	..	..	..	..	121	28	35	..	..	..
Rovers	..	..	12	34	56	..	..	..	12	34	56	..	..	..
Roving shifters	..	15	91	..	..	..	..	..	19	87	..	..	..	..
Spinners	..	..	..	127	128	468	..	..	..	255	468	..	..	..
Spinning shifters	..	123	371	..	..	..	..	..	123	371	..	..	..	..
Cop winders	..	..	17	24	100	..	43	..	..	41	100	43	..	..
Warp winders	..	..	72	76	11	..	..	..	32	40	87	..	..	..
Beamers	..	..	..	17	..	89	..	..	..	17	..	89	..	..
Weavers	..	..	..	..	..	..	227	813	..	..	110	117	813	..
Machine sewers	..	..	..	..	..	..	16	..	..	..	16	..	..	..
Hand sewers	..	87	..	..	..	..	..	..	87	..	..	..	..	..
Coolies	..	93	101	331	..	..	..	..	186	8	331	..	..	..
Total	..	513	1,200	776	319	557	286	813	657	1,372	1,368	254	813	..
Percentage to Total	..	11·49%	26·88%	17·38%	7·15%	12·48%	6·41%	18·21%	14·72%	30·73%	30·65%	5·69%	18·21%	..

TABLE XXII

Table showing wages and earnings in selected occupation in January 1944, in the Jute Mills in the Madras Presidency (South India) covered by the Wage Census.

(WEIGHTED AVERAGES).

Occupation.	Sex.	Piece (P) or Time (T).	Number of workers..	Average daily basic wages earned.	Average daily gross earnings including overtime, allowances and bonuses.	Average daily net earnings including over-time, allowances and bonuses.
				Rs. A. P.	Rs. A. P.	Rs. A. P.
Jute Selectors	M	T	45	0 8 7	0 11 5	0 11 5
	F	P	15	0 7 10	0 11 4	0 11 4
Jute Cutters	M	T	116	0 7 8	0 10 7	0 10 7
Softener Feeders & Receivers ..	M	T	72	0 6 7	0 9 2	0 9 2
	F	T	4	0 6 11	0 10 4	0 10 4
Teaser Feeders & Receivers ..	M	T	10	0 6 11	0 9 5	0 9 5
	F	T	25	0 7 6	0 11 0	0 11 0
Breaker Feeders & Receivers ..	M	T	14	0 7 1	0 12 3	0 12 3
	F	T	220	0 7 2	0 10 4	0 10 4
Finisher Feeders & Receivers ..	F	T	5	0 5 6	0 8 4	0 8 4
Drawing Feeders & Receivers ..	M	T	15	0 7 2	0 10 8	0 10 8
	F	T	209	0 6 11	0 10 4	0 10 4
Roving feeders	M	T	35	0 8 11	0 12 4	0 12 4
	F	T	139	0 6 0	0 7 2	0 7 2
Rovers	M	T	80	0 9 10	0 12 4	0 12 4
Roving shifters	M	T	106	0 6 10	0 9 7	0 9 7
Spinners	M	T	723	0 11 0	0 13 9	0 13 9
Spinning shifters	M	T	395	0 7 0	0 10 3	0 10 3
	F	T	94	0 4 7	0 5 1	0 5 1
Cop Winders	M	P	184	0 10 9	0 14 4	0 14 4
Warp Winders	M	P	99	0 8 3	0 11 2	0 11 2
	F	P	60	0 8 1	0 11 7	0 11 7
Beamers	M	P	106	0 11 9	0 14 10	0 14 10
Weavers	M	P	1,040	1 0 1	1 3 5	1 3 5
Machine Sewers	M	P	16	0 14 6	0 15 4	0 15 4
Hand Sewers	F	P	87	0 4 10	0 5 6	0 5 6
Coolies	M	T	424	0 8 0	0 10 11	0 10 11
	F	T	101	0 5 3	0 6 4	0 6 4
Total			4,459			

So far as earnings are concerned, 45.45 per cent. earn less than annas 12 per day, 36.34 per cent. receive between annas 12 and Rs. 1|4|0 per day, while 18.21 per cent. earn Rs 1|4|0 to Rs. 1|8|0 per day.

As regards basic wages in numerically important occupations, it is seen from Table XXI above that weavers earn the highest basic wage, namely, Rs. 1-0-1 per day. Machine sewers earn on an average as. 0|14|6 per day from the basic rates of wages. The average basic wage of a spinner is as. 11 per day and of spinning male shifter is as. 7 per day. The average basic wage of a female spinning shifter is only as. 4|7 per day. Except for female warp winders, in none of the other occupations do women have a basic wage of as. 8 or more per day. The basic wage of a male cooly is annas 8 per day and of a female cooly as. 5|3 per day.

As regards earnings which are constituted of the basic wages and all other allowances including overtime pay, it is seen from the table that weavers earn on average about Rs. 1-3-5 per day or Rs. 31-9-0 for a month of 26 work-

ing days. The average daily earning of a spinner is as. 13|9 or Rs. 22-5-6 for a month of 26 working days. Spinning shifters earn as. 10|3 per day or Rs. 16-10-6 for a month of 26 working days. The average daily earning of a male cooly is as. 10-11 per day and of a female cooly as. 6-4 per day or Rs. 17|12|0 and Rs. 10|5|0 respectively for a month of 26 working days.

It is possible to study the variations in wages and earnings in the different units of the industry in South India from the table given in Appendix IX. Owing to the variation in the number of working days in the wage period, such a study can best be made by comparing the average daily wages and earnings in these four units. It will be seen from the table referred to that in most of the occupations the variations between the two large units and the two smaller units are very considerable and sometimes there is a difference between them of as much as 49 per cent. The wage rates and earnings in two of the bigger units appear to be almost the same. Considering the important occupations it is seen that so far as weavers are concerned, in the two larger units the basic wage is about Rs. 1-1-0 and the average daily net earning is about Rs. 1-7-0. In the smaller units, there is not much difference in the average basic wage which is about as. 15 per day but the average net earning is less than a rupee. As regards spinners, in the two large units, the average wage comes to as. 12 a day and the average net earning about a rupee a day. On the other hand, in the two smaller units, the average basic wage is about as. 9 a day and the average earning about as. 11 a day. In regard to spinning shifters the basic wage in the two large units is about as. 7 a day, while in the two smaller units it is as. 5-6 and as. 4-7 respectively, the latter figure being for female labour. The average daily earnings of spinning shifters in the two larger units are about as. 11 a day and in the two smaller units as. 5-1 and as 7-6 respectively, the former figure relating to female labour. In regard to coolies, the basic wage rate in the two large units is about as. 9 per day for males and about as. 7 per day for females, while in the two smaller units it is as. 6 for males and as. 5 for females, the average daily net earning of coolies being about as. 12 in the larger units and about as. 7 in the smaller units.

PART III.

CHAPTER V.—SUMMARY AND CONCLUSIONS.

It has been stated in the introductory chapter that India has a virtual monopoly of raw jute and that the jute mills especially those in Bengal, have, therefore, all the raw material required by them at their very doors. The total number of persons employed in the Industry is about 2,89,000. The industry is located in Bengal, United Provinces, Bihar, South India, Raigarh (Eastern States Agency), and Chandranagar (French Settlements). Of the total number of persons employed, about 93 per cent. are employed in Bengal and the rest in the other centres. The rise of the industry in these smaller centres has been of recent origin and the story of jute industry in India is really the story of the jute industry in Bengal. In this section, for the most part, therefore, emphasis will be laid on the conditions in Bengal with only casual references to other centres where they appear to be relevant and necessary.

A peculiar feature of the industry in Bengal is that it is manned mostly by non-Bengalis, Biharis and men from the United Provinces forming the great bulk of the labour force. Nearly half the workers live singly and make occasional visits to their villages either once a year or once in two years.

One of the developments arising out of War conditions has been the shortage of labour in the mills. At the time of the enquiry, most of the mills were working 60 hours or more per week and there was considerable over-time working also. The appendix containing information regarding weekly hours of work shows how these have varied from time to time, and the frequent variation voluntarily brought about in the hours of work appears to be one of the striking features of this industry. The last two or three years have also witnessed extremely abnormal conditions owing to the bombing raids in Calcutta, famine conditions, the stoppage of looms owing to coal shortage and the transfer of labour from one mill to another owing to the requisitioning of some mills by the military authorities. During the periods of forced idleness, owing to closure of mills, the employers give to the workers compensation known as *khoraki* to the extent of Rs. 4-4-0 per week.

Speaking generally, working conditions within the mills themselves are not too unsatisfactory and, in fact, some of the larger units have tried to make them fairly comfortable. At the same time, in an old established industry like this, one would expect that the most modern ideas for improving working conditions would be followed by the introduction of humidification plants, cooling plants, etc., so that the working conditions inside the mills may be made as comfortable for the workers as possible with the resulting increase in their efficiency. In the newer mills in the other centres working conditions inside the mills are superior to those to be found in the Bengal industry.

It is to be noted that in regard to the supply of drinking water and sanitary arrangements, very little has been done in order to see to it that the workers' reasonable needs are satisfied. For instance, the provision for the supply of drinking water takes the form merely of providing a few common taps close to the mills in the open air without proper shelters. The requisite number of latrines is provided, but in most cases they are filthy and in a most insanitary condition. Nor are there any rest shelters where the workers can rest during rest interval to take their meals. Here again the centres outside Bengal have been more progressive.

One noticeable advance since the Royal Commission on Labour in India reported on the subject is the virtual abolition of the multiple shift system. In some mills, however, there is a break of about three to four hours in between two periods of work and where the employers have provided no houses in the vicinity of the mills, the workers are put to considerable difficulty in going back to their homes for eating their meals and coming back for working in the mills for another spell.

Another notable advance is the virtual abolition of child labour.

The question of wages and earnings in the different centres of the industry has been discussed in detail in the appropriate sections of Part II of the report. One striking fact which seems to emerge from an analysis of the wage data collected in the course of the wage census is that while wages vary between unit and unit in the same centre there is a marked similarity in the basic wage rates in the important occupations in all the centres of the industry. Thus, the daily wages of Breaker feeders and receivers and Drawing feeders and receivers are about as. 7 to as. 8, of spinners about as. 11, of spinning shifters about as. 7 and of weavers about Re. 1 per day.

The following frequency table of basic wages and earnings in the three centres summarises the wage position in the industry.

TABLE XXIII

Centres.	Under 8 as.		8 as. to 12 as.		12 as. to Re. 1.		Re. 1 to Rs. 1-4.		Rs. 1-4 to Rs. 1-8.		Rs. 1-8 and above	
	% age of workers to total.		%age of workers to total.		%age of workers to total.		%age of workers to total.		%age of workers to total.		%age of workers to total.	
	B.W.	N.E.	B.W.	N.E.	B.W.	N.E.	B.W.	N.E.	B.W.	N.E.	B.W.	N.E.
Bengal ..	7·2	..	43·0	6·41	20·7	37·69	19·4	24·39	6·7	19·24	3·0	12·27
Cawnpore ..	31·73	..	36·74	..	24·22	..	7·31	40·41	..	31·84	..	27·75
Madras Presidency	38·37	14·72	24·53	30·73	18·89	30·65	18·21	5.69	..	18·21	..	..

NOTE.—B. W. = Basic wage ; N. E. = Net Earnings.

It is clear that more than half the labour force in the industry is in receipt of a daily basic wage of less than as. 12. About 10 per cent. of the workers in Bengal are in the wage categories Rs. 1-4-0 or more but no workers in South India or in Cawnpore are to be found in these categories. The position in regard to earnings is, however, strikingly different as between Cawnpore and the other two centres of the industry. This is due, among other reasons, to the wide disparity in the scale of dearness allowance granted in Cawnpore and the other centres. As has been pointed out already, in Cawnpore the rate of dearness allowance comes to about as. 12 per day as against the amenity allowance of Rs. 2 per week or as. 5|4 per day in Bengal and South India. The result is, as is seen from the table, that no worker in Cawnpore earns less than Re. 1 per day, while in Bengal and South India 44 per cent. and 76 per cent. respectively are in the earning category Re. 1 and below. Moreover, in Cawnpore, more than quarter of the labour force earns more than Rs. 1-8-0 per day as against 12.27 per cent. in Bengal and nil in South India.

From such statistical evidence as is available there is no doubt whatever that wages and earnings, particularly the latter (with the exception of Cawnpore) in the jute mills are appreciably lower than in a sister industry like cotton in Bombay city or for that matter even in important South Indian Centres such as Madras and Madura. According to the Report of the Bombay Textile Labour Enquiry Committee*, the average earnings of all process operatives in 1937 were Rs. 1-1-4 per day. These were increased in 1938 by about 11 per cent. At present the dearness allowance paid is about Rs. 1|2|6 per day or about Rs. 30 per month of 26 days. In Madras the minimum wage paid by the Buckingham and Carnatic Mills under their basic wage scheme is as. 12 per day and the dearness allowance is about Rs. 18 per month. In Madura, the present minimum basic wage in process occupations is as. 10 to as. 12 per day and the dearness allowance paid amounts to Rs. 24|8|- per month.

No evidence is obtainable as to the basis on which dearness allowance is being granted in the jute mill industry in Bengal. From such estimates as can be made of the present level of retail prices ruling in and around Calcutta, cost of living is at least 200 per cent. higher than during the pre-war period. Taking this into consideration, an amenity or dearness allowance of Rs. 2 per week and a grain concession amounting to Rs. 1-1-9 the increase in the earning would not amount to even 100 per cent. of the basic wage. It is thus clear that the jute mill worker in Bengal is very much worse off as compared to the pre-war period in view of the rise in the cost of living.

Unlike workers in most organised industries in the country, jute mill workers except those at Cawnpore receive no profit or prosperity bonus.

*Report of the Bombay Textile Labour Inquiry Committee, 1940, page 55.

The Royal Commission on Labour in India had some serious criticisms to make about the housing conditions of jute mill workers in and around Calcutta. Since then some mills have gone in for a little better housing for their workers and in this connection special mention must be made of the housing supplied by the Angus mills and the Birla mills. The majority of the workers in the industry, however, continue to live either in back-to-back lines supplied by the employers or in *kutcha* bustees made available by private landlords. The conditions in some of these are unspeakable and call for immediate and drastic reform.

The Indian Jute Mills Association have recently implemented the recommendation of the Royal Commission on Labour in India and many of the member mills have appointed Labour Officers. In addition, the Association itself has appointed a number of well-paid Labour Officers to look into the grievances of the work people. From the accounts received, it would appear that the institution of Labour Officers has so far met with only a limited measure of success, although it must be admitted that it is still in an experimental stage.

Trade Unionism among the workers continues to be very weak and the vicious circle referred to by the Labour Commission of low wages, poverty, inefficiency and lack of organisation still continues.

In regard to welfare activities, such as the provision of medical relief, provision of educational facilities for children and adults, recreational facilities, etc., in the last few years there has undoubtedly been some improvement. Mention has already been made in this connection of the welfare centres recently started by the Indian Jute Mills Association. The scope of these activities need an early extension if the industry is not to lag behind the welfare standards of other organised industries, notably the cement industry. Since nearly half the labour force employed in the industry lives singly, the necessity of organising welfare activities on an extensive scale needs no emphasis.

A development in recent years which deserves considerable notice is the ever-growing activity of the office of the Labour Commissioner in Calcutta. This office has now expanded considerably and is making effort to improve the conditions of work and wages of jute mill workers. It is also assisting both the employers' and workers' organisations to deal with many problems which arise in the day-to-day work of the mills.

Briefly, the most urgent and immediate problems in the industry appear to be (a) the standardization of wages, (b) the necessity of undertaking an immediate programme of building houses for the workers, not of the back-to-back tenement or of the bustee type, but with due regard to the family needs of the workers with reasonable arrangements for water supply and sanitation, (c) the need of starting some scheme, either of Provident Fund or Gratuity for safeguarding the future of the worker, (d) an extended programme of welfare work which will make the worker a little better educated than he is and more self-respecting and (e) the enactment of legislation, somewhat on the lines of the Bombay Industrial Disputes Act, in order to ensure security of tenure for the worker and to provide a legal channel for the ventilation of his grievances.

S. R. DESHPANDE,
Member,
Labour Investigation Committee

SIMLA,
17th September 1945.

APPENDIX I.

Working hours Agreements among Jute Mills in India from 1872 onwards.

Year.	Working Hours.
1872..	Upto 1872, mills worked between 6 A.M. and 6 P.M. with two breaks at 9 to 10 A.M. and 1 to 2 P.M., *i.e.*, 10 hours a day.
1873 onwards	Mills worked throughout the day for 12 hours under a crude system of relieving squads.
1886 from 15th February onwards	The first agreement for six months dating from 15th February was subsequently renewed at intervals without a break for 5 years upto 15th February, 1891. During these 5 years the extent of the short-time varied between 4 days a week, 9 days a fortnight and 5 days a week. The exceptions to the agreement were Hooghly and Serajgunge Mills.
1895	Electric light came into general use from this year and regular multiple shift system of working was followed, machinery working for 15 hours per day.
1899 1st April onwards ..	A six months' agreement came into force on 1st April 1899, but it lasted for 2 months only.
1906 from 1st January to 30th June.	Mills agreed to curtail production by stopping the electric light, and worked from sunrise to sunset for 6 months, from 1st January, 1906.
1908 15th March to 1909 30th September.	Extension in some mills and establishment of new mills augmented productions to such an extent that it was found expedient to work 5 days a week.
1910 May to August	Due to absence of unanimity among members of the Association, short time working of 5-days week was postponed from January till April 1910. An agreement to work 5 days a week was in operation from May to August.
1910 1st September to 1912 30th June.	The agreement to work five-day week was continued with some variations.
1921 1st April to 1929 30th June	Mills worked 54 hours per week (No restriction).
1929 1st July to 1930 30th June	Mills worked 60 hours per week (No restriction).
1930 1st July to 30th September	Mills worked 54 hours per week (No restriction).
1930 1st October to 1931 28th February.	Mills worked 54 hours per week but closed down for one week per month.
1931 2nd March to 1934 3rd October.	Mills, with certain exceptions, worked 40 hours per week.
1934 1st November to 1935 30th April.	Mills worked 40 hours per week.
1935 1st May to 4th August ..	Mills worked 40 hours per week.
5th August to 10th November.	Mills worked 40 hours per week.
1935 11th November to 1936 31st March.	Mills worked 40 hours per week.
1936 1st April to 30th June ..	Mills worked an average of 46·28 hours per week.
1st July to 3rd August ..	Mills worked 50 hours per week.
1936 4th August to 1937 28th February.	Mills worked 54 hours per week (No restriction).
1937 1st March to 1938 25th September.	All other restrictions withdrawn and majority of mills worked 54 hours per week.
1938 26th September to 1939 19th February.	Mills worked 45 hours per week with the exception of those with 175 looms or under which were permitted to work 72 hours per week.
20th February to 30th July	Mills worked 45 hours per week but those having registered complements of looms not exceeding 220 worked 72 hours per week.
31st July to 12th September	Mills worked 40 hours per week.
13th September to 24th September.	Mills worked 45 hours per week.
25th September to 2nd November.	Mills worked 54 hours per week (No restriction).
1939 3rd November to 1940 7th April.	Mills with more than 220 looms worked 60 hours a week—others 72 hours a week Exemption granted from the provisions of Indian Factories Act.
8th April to 18th August ..	Mills worked 54 hours per week (No restriction).
19th August to 31st August	Mills worked 45 hours per week.
1st September to 30th November.	Mills worked 45 hours per week with one week closed in every four.
December	Mills worked 45 hours per week with second week of December closed.
1941 1st September	Mills with more than 220 looms worked 50 hours. Others 72 hours per week.
13th October	Do. 54 hours. ,, 72 hours ,,
5th November	Do. 60 hours. ,, 72 hours ,,
1942 18th May	Do. 54 hours. ,, 72 hours ,,
	10% of the looms were sealed for Mills with over 220 looms.
1943 12th March	Mills with more than 220 looms worked 60 hours. Others 72 hours per week, all looms unsealed.
1943 12th May	Mills with more than 220 looms worked 54 hours. Others 72 hours per week.

APPENDIX II.

Processes involved in the manufacture of Jute yarn and goods.

On arrival at the mill, the jute is usually inspected by the Head Office Assistants and assessed in accordance with the proportions the bundle carries of the different qualities of Hessian warp, Hessian weft, Sacking warp and Sacking weft. From these assessments, the different batches of bales are determined in the batching house where the first step of making yarn out of the raw-material is taken. Jute from the different districts having similar yarn out-turn is placed together in the mill. The bales are then opened by selectors who put the fibres into the various qualities already mentioned. These are piled in four bundles and removed to the proper section of the batching house in which that particular class of fibre is handled. It now goes straight to the softeners where emulsion is applied, and after passing from the softeners their roots are cut off and the jute either goes direct to the breakers and/or to the batching peels. The emulsion consists of water and oil and approximately 3 per cent. of soap or emulsifying agent. The whole idea of this is to soften the fibre and prepare it for the spinning. It is in this department that the foundation of good cloth is laid. The emulsion is applied to the jute as it passes through the softeners. After passing through the softeners the jute comes either direct to the breakers or to the peels as mentioned above but the cuttings are peeled and allowed to lie for different periods according to the Manager's judgment.

Softeners.—The Softeners consist of 48 to 72 sets of fluted rollers built in sections, which contain 8 pairs of spiral fluted rollers. After passing through this machine the fibre is softened and the barky portion is broken off. The jute is now ready for carding.

Preparing Department.—As the name implies the fibre is prepared in this department for spinning for which it is prepared into the form of "Sliver" which when twisted forms the "Rove" which is wound on large wooden bobbins for actual spinning. There are three main operations carried out before the rove is prepared. The first is the carding operation whereby the fibre strands are split, shortened in length, combed and drawn into a loosely-knit Silver or ribbon of fibre. The object of carding is to straighten the fibres to enable them to be laid parallel to each other and thus lay the foundation for the product of a decent and comparatively uniform Sliver and ultimately a level thread. This breaking or splitting up of the fibres has led to the adoption of the term "Breaker Cards". After passing through this machine the Sliver is irregular in thickness and therefore the carding operation is continued on a finer scale with finer adjustments. These subsequent carding operations are invariably conducted in what are known as 'Finisher Cards' and all such cards are provided with more pairs of rollers and with finer covering of cloth than what are required in 'breaker cards'.

Prior to being fed on the feed table of the 'Breaker' the fibre is arranged in bundles of uniform weight each such weight being called a 'Dollop'. This 'Dollop' or weighed fibre has to be fed over a fixed length of the feed cloth which is determined by a feed clock driven off the 'Feed Roller'. The fibre after being worked round the cylinder in the breaker is finally collected and delivered through the drawing roller down the conductor through the delivery roller and thence out of the machine in the form of a Sliver. This sliver is either made into rolls on the roll-former or packed into cans for passing on to the finisher card where the carding action initiated in the breaker is repeated. The finisher is fed by ten to twelve slivers of different qualities and all these emerge in one end of sliver from the delivery end of the machine. Hence this is the first machine where doubling takes place, thus bringing about a blending of colours and providing for levelness in the ultimate yarn. Here also

the sliver is either made into rolls or packed in cans before fed into the drawing machine.

Drawing.—As the name implies the purpose of this machine is to further double the sliver and to draw the fibre gradually, reducing the weight of the sliver to a size of suitable levelness and thickness and weight for twisting into a rove before spinning. In this machine two into one out, or four into one out, is the doubling done usually. The sliver passes through ten such rollers running at different speeds which brings about the drawing action referred to. Between these rollers the fibres pass through a series of steel pins in a car and this effects the parallelisation so necessary for the production of level yarn. Usually there are two sets of drawing machines from the receiving end of which the sliver is packed into cans whence it is delivered later upto the roving frames.

Roving.—From the mechanical point of view this is the most complicated machine in jute mills and combines features common both to drawing and spinning machinery. In addition to drafting out the fibre, the sliver is lightly twisted and built on to a bobbin usually 10 inches by 5 inches, and this completes the preparing stage and the rove is ready for the actual spinning operation.

Winding.—The yarn threads in cloth are known as warp and weft which necessitate two types of winding apparatus, namely the spool winder and the cop winder. The purpose of the spool is to enable easy handling on the beaming machines. The spool winder is set to give a predetermined length, diameter and density to the spools. The yarn is drawn from the bobbin and wound on a wooden core set horizontally on the frame, the yarn being guided from side to side by a traverse motion which enable the spool to be built up evenly on the wooden centre.

The cop machine is designed for making cops of yarn for the shuttles of the loom. The cop winding frame consists of a series of spindles, the top end of which revolves inside a cone and it is within the cone that the cop is formed. The diameter of the cop can be varied within the limits of this cone by adjusting the regulating shaft to which is attached the thread guides. The length of the cop can also be adjusted. When the cop is built to the size required the spindle is drawn and the yarn is ready for the loom.

Spinning.—On the spinning frame the rove is further drawn out and is drafted to the ultimate weight of yarn required. The draft can range from ten to as low as three according to the quality being turned out.

After merging from the drawing roller the yarn is given a twist by steel flyers revolving at high speed round the bobbin on which the yarn is wound.

Twisting.—When three or more threads of yarn are twisted into a single thread it is called a twist and this is necessary for certain branches of the trade. The twisting frame is similar to an ordinary spinning frame except that no drafting mechanism is required.

Beaming and Dressing Machine.—On this machine the final preparation is given to the warp yarn which has been made into spools before it is converted into cloth on the loom. The threads from the required number of spools are wound parallel to each other on an iron beam. The dressing machine coats the thread with suitable sizing mixture which usually contains starch, and then dries and winds the parallel threads on a beam. When filled, the beam may held sufficient yarn for 10 or 11 cuts* of hessian or 9 or 10 cuts of sacking cloth.

Weaving.—The beam, with the warp thread wound on it, is fitted at the back of the loom and the individual threads are brought forward through the camb and reed over the lay. The shuttle containing weft flies from side to

*A cut is generally equivalent to about a 100—110 yards.

side, between the alternate threads of the warp as they are moved alternately up and down by the camb. In this way a weave of thread is prepared. The cambs are operated by attachment to treadles which in turn are worked by wypers. The whole mechanism operates the cambs, through the mails of which the beam yarn passes, and it is at this point that the shed is formed which allows the shuttle to pass freely from one end of the lay to the other completing the fabrication of the cloth. The type of cloth and the number of threads per inch can be easily regulated. In the case of weft it is adjusted by means of shotting pinions. The motion of the shuttle is regulated by the picking arm. The number of picks vary according to the size of the looms and can be anything from 125 to 170 picks per minute. Cloth is made in pieces known as cuts, the lengths of which vary from mill to mill. The weaver is guided, by marks which are made on the yarn at the time of beaming. After the cloth has been woven it is sent to the finishing department.

Finishing Department.—In the finishing department the rough cloth is put through a series of processes which are jointly referred to as ' finishing '. These include :—

(i) *Cropping,* where all projecting fibres are removed by passing the cloth under spiral blades.

(ii) *Damping,* here a fine spray of water is played over the cloth as it passes between rollers. The quantity of water sprayed is carefully regulated.

(iii) *Calendering.*—After the cloth passes through the damping process it is led between 5 sets of cylinders which are superimposed. One of the rollers at the lower end is steam heated and pressure can be applied as desired to the fabric by adjustment of a system of weights and levers. The effect of this process is to iron and flatten out the cloth and give it a good appearance.*

APPENDIX III.

Specimen Service Card.

Name..... Sex..... Home address ..... Photograph
Father or Husband's Name .....
Religion .....
Date of Birth .....
Date of Joining .....
Can read ..... write ..... local address .....
Identification Marks .....
Permanent or Budli .....

Mill No.	Dept.	Token No.	Designation	Mis. No.	Rate of pay	Joined	Left	Reason	Quality of work	Conduct

Warnings and Fines.

Date	Dept.	Reason	Amount.

Absence Periods.

From	To	Reason	From	To	Reason

Medical Report.

Claims under Workmen's Compensation Act.

Mill No.	Dept.	Token No.	Designation	M/C No.	Rate of pay	Joined	Left	Reason	Quality of work	Conduct

*Note Supplied by the Assistant Commissioner of Labour, Bengal.

APPENDIX IV.

Draft rules regarding Conditions of Service for Operatives in Jute Mills under consideration of the Indian Jute Mills Associations.

These conditions of service shall come into force on and from 1st July 1945.

2. The mill shall maintain I.J.M.A. service record cards of standard size, wherein particulars of every worker, both permanent and substitutes, shall be recorded. A standard I.J.M.A. employment book shall also be maintained by the mill, on behalf of every permanent worker, wherein all particulars recorded on the service record card shall also be entered. Every per-worker will be entitled to this employment book which will serve as his personal record of employment in the jute mill industry.

3. All workers, both male and female engaged in the ..... Jute mill and Mill premises are subject to the following conditions of service. The expression " worker " in these regulations includes every male and female employee below the rank of Dept. Overseer.

4. *Classification of employees.*—Workers shall be classed as (a) Permanent (b) Substitute (Badli) (c) Temporary (casual) workers (d) Apprentices.

A "Permanent" worker is one whose name has been entered on the works Records and whose permanent status has been noted in ink on both the Service Card and employment book.

A " substitute " (Badli) worker is one who is employed on the post of a permanent worker temporarily absent.

A " temporary " (casual) worker is one who is engaged for work of a purely temporary nature.

An " apprentice " is an approved learner who may be given a nominal wage during the period of his training.

5. *Manner of Notification of periods, Hours of work, Holidays, Pay days and Wage rates.*—The periods and hours of work for all workers shall be prominently displayed within the mill premises and shall be as the Management may from time to time decide.

6. Notices specifying (a) those days observed by the mill as holidays (b) pay days, as required by the Factories Act and Payment of Wages Act, shall be prominently displayed within the Mill premises.

7. Notices specifying rates of wages payable to all classes of workers and for all classes of work shall be conspicuously displayed in the departments wherein the particular workers are actually working.

8. *Attendance and Late coming.*—All workers shall be at work in the mill at the time fixed and notified to them, and any worker who has not arrived at the stipulated time is liable to be regarded as absent without leave, and a proportionate deduction may be made from his wages, in accordance with the provisions of the Payment of Wages Act. Any worker who after checking in, is found to be absent from his proper place of work during working hours, without permission, or without sufficient reason, shall be liable to be treated as absent without leave.

9. *Wages.*—Wages shall become due on performance of the conditions of employment and shall be paid daily, weekly or monthly in accordance with the provisions of the Payment of Wages Act. Any worker who has not been able to work for the whole wage period shall only be entitled to the wages due for the period he has actually worked. Overtime rates shall be paid according to the rules providing for such work as laid down in the Factories Act.

10. *Leave, Holidays, etc.*—Any worker who desires to obtain leave shall apply previously to the head of his department, who shall, if the application is sanctioned, issue a leave pass stating the period of leave granted. In the event of any worker remaining absent in excess of the leave period granted, is liable to reduction to substitute (badli) status or dismissal unless he has previously secured written permission to extend the leave originally granted or on his return is able to give to the manager a satisfactory explanation of his failure to apply for an extension of leave.

The days to be observed as holidays with pay for the purposes of the Indian Factories Act will be those notified by the Indian Jute Mills Association with the approval of the Government of Bengal. " These will be observed by this mill."

Sick leave at the discretion of the Management will be granted on the production of a certificate from the Company's Medical Officer, and will be subject to the Dispensary Rules in force at the time the leave is applied for.

A woman worker who has been employed for at least 9 months continuous service in a mill immediately prior to her delivery, shall be granted benefit in accordance with the provisions of the Bengal Maternity Benefit Act, 1939.

11. *Safety Regulations and Accident preventions.*—All cases of injury or illness arising out or in the course of employment must be reported at once to the mill dispensary, where all workers will receive free medical treatment.

Workers are required to observe strictly the Safety Regulations of the Mill. Any worker who is found to be wilfully disregarding these and/or taking unnecessary risks which might involve personal danger, or danger to others or damage to plant, buildings, etc., will be liable to dismissal.

Machinery, on getting out of order, shall be immediately stopped by the worker in charge of such machinery, who shall report the circumstances at once to his superior.

Except in the fulfilment of their duties, workers shall not interfere with anything in the mill, such as railway lines and points, buildings, or their fittings, plants, machinery, tools, implements, stores, materials, etc., in any stage of use or manufacture ; neither shall they operate or assist to operate, without authority, machines other than their own. No unauthorised person shall interfere in any way with electrical plant or connections.

Machinery shall not be cleaned when in motion. No guard or fences shall be removed from any machinery in motion. Guards and fences when removed for any purpose must in every case be replaced before the machinery is started.

12. *Prevention of pilferage.*—All workers entering or leaving the mill, and at any time when special circumstances warrant it, are liable to be called upon by the Works Watchmen or other persons authorised by the management, to show that they are not in unauthorised possession of any property belonging to the Company, or any article prejudicial to the security of the mill. In the case of female workers, only women will be authorised to conduct the necessary investigation. All workers must co-operate with the company's officers in ensuring full observance of this rule.

13. *Entry by certain gates.*—All employees shall enter and leave the mill premises only by the gates appointed for the purpose by the management.

Mill gates may be kept closed during working hours at the discretion of the Management and workers must not leave the premises during working hours without permission.

14. *Stoppage of work.*—The mill may at any time or times, in the event of a fire, catastrophe, breakdown of machinery, or stoppage of the power supply,

epidemic, strike, or other cause whether of the same nature as the preceding events or not; beyond the control of the management, stop any machine or machines or department or departments, wholly or partially, for any period or periods without notice.

15. In the event of a strike in the mill, the management may close down the mill, in part or wholly, and the workers so affected shall not be entitled to notice or to compensation in lieu of notice. When the management has received sufficient indication from the workers of their willingness to resume work a general notice shall be posted on the mill gates notifying the time at which, subject to the management being satisfied that a sufficient number of workers are present, work will be resumed.

16. *Termination of employment and service certificates.*—All engagement of permanent workers are subject to termination, on either side, upon one week's written notice or one week's wages in lieu of notice, being given in the case of weekly-paid workers and one month's written notice or one month's wages in lieu of notice in the case of monthly-paid workers. In the case of substitute workers such notice of termination of service or wages in lieu thereof shall be given only when the period of employment exceeds fourteen days continuously in the case of weekly-paid workers. Temporary (casual) workers may, however, leave or be discharged from service without any notice whatsoever. All wages earned and unpaid shall be paid to the workers either at time of discharge, if convenient, and in any case within the period of time stipulated by the Payment of Wages Act.

No substitute (badli) worker can be refused employment if (a) a vacancy exists, (b) it is his turn in the Roster and (c) he has not been dismissed or demoted during his last period of employment.

Each permanent worker shall be entitled to a service certificate at the time of leaving service, or discharge.

17. *Punishment for Misconduct.*—The Management reserves the right to dismiss any worker whether permanent or otherwise, without notice, for disobedience to lawful orders, or for any gross misconduct.

The following acts or omissions are included in the definition of gross misconduct :—

(a) Insubordination or disobedience whether alone or in combination with another or others of any lawful and reasonable order of a superior.

(b) Striking work either singly or with other workers without giving 14 days' previous notice in writing.

(c) Inciting, whilst on the premises, any employee to strike work.

(d) Theft, fraud or dishonesty in connection with the Company's business or property.

(e) Taking, giving, offering or asking for bribes, or any illegal gratification whatsoever.

(f) Absence without leave.

(g) Habitual late attendance.

(h) Collection of monies within the mill premises for purposes not sanctioned by the Management.

(i) Engaging in trade within the mill premises without permission of the management.

(j) Inciting others to disturbance or violence.

(k) Smoking on the mill premises.

(l) Habitual breach of rules or instructions for the maintenance and running of any department, or the maintenance of the cleanliness of any portion of the mill premises or mill compound.

(m) Frequent repatriation of any act of omission for which a fine may be imposed under the Payment of Wages Act.

(n) Allowing an unauthorised person to operate his machine.

18. Without prejudice to the foregoing, it shall always be optional to the Manager to impose a fine in accordance with the provisions of the Payment of Wages Act instead of dismissing summarily without notice.

19. *Procedure under Clauses* 17 *and* 18.—No order of punishment under clause 17 and/or 18 of these conditions shall be made unless the worker is informed of the alleged misconduct and is given an opportunity to explain the circumstances alleged against him.

20. All complaints arising out of employment, including those relating to unfair treatment, or wrongful application of these rules on the part of the employer, shall be submitted to the Manager, or such other officers as he may appoint. Should there be any divergency of opinion between the worker and the manager, the worker shall have the right of reference to the I. J. M. A. Labour officer, who will fully and impartially investigate the cause of complaint and report thereon to the Managing Agents.

21. *Housing Accommodation.*—Workers who are permitted to occupy quarters provided by the mill shall do so on the following conditions :—

(a) Such quarters are for employees only,

(b) Employees will only be permitted to live in such quarters during the period, and only as an incident of their service with the Company.

If an employee's services are dispensed with, or if he leaves the Company's services, or refuses to work, the employee must immediately vacate the quarters. Deductions from wages may be made for house accommodation provided by the management to employees, and which the latter have accepted. Such deductions will not exceed an amount to the value of the house accommodation as fixed by the Management.

APPENDIX V.

Wage Census form used for Collection of Data.

Males / Females / Children

WAGE CENSUS IN THE JUTE MILL INDUSTRY.

1st shift. / 2nd Shift. / 3rd Shift.

Name of concern .....

Information relating to the wage period from .....

..... to .....

Occupation .....

Name of Centre .....

No. of actual working days during the wage period .....

Type of concern .....

Actual hours of work per shift.....

Total 'spread over'.....

Total number of persons employed in the occupation or department .....

Wage Period—Weekly

1	2	3	4	5	6	7	8	9	10	11	12
Muster or Serial or Ticket No.	Piece or Time.	Actual number of days worked by the operative in Col. 1. during the week.	Rate of wages per .... 54-hours week.	Total wages earned. for 54 hours.	Over-time pay.	Amenity Allowances.	Bonuses.	Gross earnings.	Deductions under Section 7, ii, a & c of the Payment of Wages Act.	Net earnings.	Remarks.
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	

APPENDIX VI.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—JUTE SELECTORS.

Unit No.	Sex.	P. or T.	Number of Workers	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6†	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	P.	4	3 5 6	4 9 3	60 hrs. ..	2	50%
2	M.	P.	2	*12 6 10	14 14 9	54 hrs. ..	2	100%
3	M.	T.	5	4 0 0	6 8 3	48 hrs. ..	5	100%
4	M.	P.	7	5 1 4	8 2 4	63 hrs. ..	7	100%
5	M.	P+T	4	6 6 0	8 3 2	54 hrs. ..	4	100%
6	M.	P.	10	6 15 1	9 1 7	54 hrs. ..	9	90%
7	M.	T.	1	4 8 0	6 4 0	60 hrs. ..	1	100%
8	..	..	..	..	..	..	..	
9	M.	P.	22	6 0 9	8 0 7	60 hrs. ..	22	100%
10	..	..	..	..	..	..	..	
11	..	..	..	..	..	..	..	
12	M.	P.	27	6 1 2	7 4 5	54 hrs. ..	27	100%
13	M.	T.	24	4 2 0	5 11 11	54 hrs. ..	22	92%
14	M.	P.	17	4 12 8	6 10 10	54 hrs. ..	14	82%
15	M.	P.	54	6 1 3	7 15 1	54 hrs. ..	49	91%
16	M.	P.	31	4 7 9	5 14 4	55 hrs. ..	30	97%
17	M.	P.	10	5 7 11	6 15 8	54 hrs. ..	10	100%
	M.	T.	2	3 11 6	5 3 6	54 hrs. ..		
18	M.	P.	18	4 4 9	6 4 3	45 hrs. ..	18	100%
19	M.	P.	24	5 1 6	6 5 6	54 hrs. ..	24	100%
20	M.	P.	13	5 15 2	7 11 4	54 hrs. ..	12	92%
21	F.	T.	41	3 6 6	4 12 6	54 hrs. ..	41	100%
22	M.	P.	25	4 12 4	6 15 0	57 hrs. ..	25	100%
23	M.	P.	33	4 15 0	6 11 7	54 hrs. ..	31	94%
24	M.	P.	20	5 5 7	7 1 8	54 hrs. ..	19	95%
25	M.	P.	46	4 10 6	5 1 6	54 hrs. ..	46	100%
26	M.	P.	11	7 0 11	9 5 3	54 hrs. ..	9	82%
27	M.	P.	54	5 2 0	6 5 8	54 hrs. ..	51	94%
28	..	..	..	..	..	..	..	
29	M.	T.	120	4 4 3	6 6 3	54 hrs. ..	117	98%
30	M.	P.	55	3 15 3	5 6 1	54 hrs. ..	55	100%
31	M.	T.	16	4 11 2	6 13 1	54, 57 hrs.	16	100%
	M.	P.	5	4 6 10	6 7 3		5	100%
32	M.	P.	19	5 15 6	8 2 3	54 hrs. ..	18	95%
33	M.	P.	13	4 6 9	5 10 9	54 hrs. ..	13	100%
34	M.	P.	65	5 13 9	7 5 10	54, 63 hrs. ..	65	100%
35	..	..	..	..	..	..	..	

* High wages due to considerable extra work done.

† Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—JUTE CUTTERS.

Unit No.	Sex.	P. or T.	Number of Workers	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	16	2 14 2	4 15 10	60 hrs. ..	12	75%
2	M.	T.	8	3 2 4	4 13 9	54 hrs. ..	6	75%
3	M.	T.	14	2 12 10	4 14 5	48 hrs. ..	10	71%
4	M.	T.	20	3 7 5	5 11 5	63 hrs. ..	18	90%
5	M.	T.	17	3 10 6	5 3 6	54 hrs. ..	17	100%
6	M.	T.	25	3 8 8	5 13 11	54 hrs. ..	23	92%
7	M.	T.	1	2 14 0	4 9 0	54 hrs. ..	1	100%
8	M.	T.	9	3 6 0	6 3 0	66 hrs. ..	9	100%
9	M.	T.	54	3 11 9	5 8 0	60 hrs. ..	54	100%
10	M.	T.	1	3 5 3	5 5 6	54 hrs. ..	1	100%
11	M.	T.	6	3 0 3	4 6 3	54 hrs. ..	5	83%
12	M.	T.	46	4 1 6	6 1 3	54 hrs. ..	46	100%
13	M.	T.	32	3 12 0	5 5 4	54 hrs. ..	32	100%
14	M.	T.	31	3 12 6	5 8 4	54 hrs. ..	31	100%
15	M.	T.	66	4 7 9	6 4 6	54 hrs. ..	61	92%
16	M.	T.	46	3 5 9	4 13 3	60 hrs. ..	46	100%
17	M.	T.	25	4 6 9	5 15 6	54 hrs. ..	25	100%
18	M.	T.	22	4 0 3	5 13 0	45 hrs. ..	22	100%
19	M.	T.	54	4 3 10	5 9 2	54 hrs. ..	52	96%
20	M.	T.	34	3 6 1	4 7 6	54 hrs. ...	26	77%
21	M.	T.	82	4 9 7	5 15 10	54 hrs. ..	79	96%
22	M.	T.	76	4 2 3	5 12 5	54 hrs. ..	76	100%
23	..	..	..	..	..	..	...	
24	M.	T.	42	3 5 2	5 5 3	54 hrs. ..	39	93%
25	M.	T.	98	4 1 6	5 5 6	54 hrs. ..	98	100%
26	M.	T.	26	3 1 2	5 6 11	54 hrs. ..	20	77%
27	M.	T.	63	4 2 3	5 5 10	60 hrs. ..	61	97%
28	M.	T.	57	3 3 6	5 10 6	54 hrs. ..	46	81%
29	M.	T.	142	3 12 3	5 11 3	54 hrs. ...	140	99%
30	M.	T.	5	3 10 6	4 14 6	54 hrs. ..	5	100%
31	M.	T.	57	3 12 9	5 11 6	54 hrs. ...	57	100%
32	M.	T.	67	3 3 4	6 5 9	54 hrs. ..	65	97%
33	M.	T.	19	4 4 5	5 13 3	54 hrs. ..	19	100%
34	M.	T.	132	4 3 6	5 14 8	54 hrs. ..	128	97%
35	M.	T.	39	3 7 4	5 11 11	54 hrs. ...	39	100%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—SOFTNER FEEDERS AND RECEIVERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	7	2 8 0	4 11 6	60 hrs. ..	7	100%
2	M.	T.	4	2 15 6	4 12 3	54 hrs. ..	4	100%
3	M.	T.	12	2 4 2	4 5 7	48 hrs. ..	9	75%
4	M.	T.	14	3 0 0	5 3 0	54 hrs. ..	14	100%
5	M&F	T.	8	3 0 0	4 8 3	54 hrs. ..	8	100%
6	M.	T.	10	3 1 7	5 5 0	54 hrs. ..	9	90%
7	..	..	..	..	..	..	..	..
8	..	..	..	..	..	..	..	..
9	M.	T.	20	3 14 4	5 10 2	60 hrs. ..	19	95%
	F.	T.	20	3 1 5	4 11 2	60 hrs. ..	19	95%
10	M.	T.	3	3 7 0	5 7 9	66 hrs. ..	3	100%
	F.	T.	17	3 7 0	5 7 9	66 hrs. ..	17	100%
11	M.	T.	16	2 9 8	4 1 4	54 hrs. ..	12	75%
12	F.	T.	49	3 3 1	4 14 6	60 hrs. ..	48	98%
13	M.	T.	31	2 14 9	4 7 0	60 hrs. ..	28	90%
14	M.	T.	21	3 3 1	4 13 0	54 hrs. ..	19	91%
15	M.	T.	53	4 4 5	6 0 4	54 hrs. ..	47	89%
	F.	T.	1	6 4 3	6 4 0	54 hrs. ..	1	100%
16	M.	T.	22	3 5 9	4 13 3	54 hrs. ..	22	100%
	F.	T.	19	3 1 11	4 9 3	54 hrs. ..	19	100%
17	M.	T.	31	3 11 6	5 5 8	54 hrs. ..	31	100%
18	F.	T.	36	3 3 2	4 2 3	54 hrs. ..	36	100%
19	M&F	T.	2+6	3 13 3	5 1 3	54 hrs. ..	8	100%
	F.	T.	4	3 2 9	4 6 9	54 hrs. ..	4	100%
20	M.	T.	28	3 7 1	4 10 2	54 hrs. ..	25	89%
	F.	T.	12	3 1 3	4 3 11	54 hrs. ..	11	92%
21	M&F	T.	45	3 14 4	5 4 9	54 hrs. ..	45	100%
22	M.	T.	9	3 7 5	4 15 8	54 hrs. ..	9	100%
	F.	T.	30	3 7 8	4 15 8	54 hrs. ..	30	100%
23	M.	T.	64	4 3 5	6 0 10	54 hrs. ..	62	97%
24	M.	T.	16	2 7 0	3 14 8	54 hrs. ..	10	62%
	F.	T.	15	2 14 0	4 13 6	54 hrs. ..	15	100%
25	F.	T.	71	3 4 0	4 8 0	54 hrs. ..	71	100%
26	M.	T.	25	2 8 4	4 8 0	54 hrs. ..	16	64%
27	F.	T.	86	3 11 9	5 0 0	60 hrs. ..	86	100%
28	M.	T.	47	2 11 1	4 12 11	54 hrs. ..	35	74%
	F.	T.	7	3 0 0	5 7 6	54 hrs. ..	7	100%
29	M.	T.	91	3 11 10	5 10 9	54 hrs. ..	89	98%
	F.	T.	21	3 12 3	5 11 4	54 hrs. ..	21	100%
30	M.	T.	31	3 4 8	4 13 11	54 hrs. ..	31	100%
	F.	T.	3	2 15 0	4 7 6	54 hrs. ..	3	100%
31	M.	T.	30	3 7 8	5 4 4	54 hrs. ..	29	97%
	F.	T.	4	3 8 3	5 1 9	54 hrs. ..	4	100%
32	M.	T.	43	3 2 0	6 2 6	54 hrs. ..	43	100%
33	M.	T.	9	3 11 6	4 15 6	54 hrs. ..	9	100%
	F.	T.	50	3 3 11	4 10 6	54 hrs. ..	50	100%
34	M.	T.	92	3 4 4	4 13 2	54 hrs. ..	80	87%
	F.	T.	7	3 6 3	4 12 6	54 hrs. ..	7	100%
35	M.	T.	45	3 8 1	5 11 10	54 hrs. ..	44	98%
	F.	T.	37	2 14 9	5 0 0	54 hrs ..	37	100%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—TEASER FEEDERS AND RECEIVERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	4	2 8 0	4 11 6	60 hrs. ..	4	100%
2	M.	T.	4	2 12 8	4 4 8	54 hrs. ..	1	25%
3	M.	T.	5	2 3 6	4 4 4	48 hrs. ..	3	60%
4	M.	T.	13	3 0 0	5 2 5	63 hrs. ..	13	100%
5	M.	T.	3	3 3 0	4 11 6	54 hrs. ..	3	100%
	F.	T.	3	3 3 0	4 11 6	54 hrs. ..	3	100%
6	M.	T.	6	3 5 2	5 10 0	54 hrs. ..	6	100%
7	..	..	..	..	..	..	..	..
8	M.	T.	9	2 12 0	5 2 11	63 hrs. ..	9	100%
9	M.	T.	8	3 11 2	5 6 11	60 hrs. ..	7	88%
	F.	T.	18	3 2 6	4 13 6	60 hrs. ..	18	100%
10	M.	T.	1	3 5 3	5 5 6	66 hrs. ..	1	100%
	F.	T.	9	3 5 3	5 5 6	60 hrs. ..	9	100%
11	M.	T.	7	2 3 2	3 3 4	54 hrs. ..	2	29%
12	F.	T.	14	3 4 0	5 0 6	60 hrs. ..	14	100%
13	M.	T.	11	2 14 6	4 8 6	60 hrs. ..	11	100%
14	M.	T.	10	3 5 5	4 12 7	54 hrs. ..	9	90%
15	M.	T.	24	4 4 3	6 0 8	54 hrs. ..	23	96%
16	M.	T.	14	3 5 9	4 13 3	54 hrs. ..	14	100%
17	F.	T.	4	3 3 9	4 11 6	54 hrs. ..	4	100%
18	F.	T.	17	3 0 4	4 11 1	45 hrs. ..	17	100%
19	F.	T.	8	3 1 3	4 5 3	54 hrs. ..	8	100%
20	F.	T.	9	3 1 0	4 5 0	54 hrs. ..	9	100%
21	F.	T.	11	3 3 3	4 9 3	54 hrs. ..	11	100%
22	M.	T.	2	3 4 0	4 12 0	54 hrs. ..	2	100%
	F.	T.	17	3 4 0	4 11 4	54 hrs. ..	17	100%
23	M.	T.	16	4 4 9	6 2 3	54 hrs. ..	16	100%
24	..	..	..	..	..	..	..	..
25	F.	T.	26	3 4 0	4 8 0	54 hrs. ..	26	100%
26	M.	T.	13	2 15 10	5 8 1	54 hrs. ..	11	85%
27	F.	T.	39	3 11 9	5 0 0	60 hrs. ..	39	100%
28	M.	T.	23	2 14 7	5 1 4	54 hrs. ..	20	87%
29	F.	T.	30	3 12 3	5 11 9	54 hrs. ..	30	100%
30	M.	T.	10	3 2 11	4 12 0	54 hrs. ..	10	100%
	F.	T.	3	3 1 6	4 10 6	54 hrs. ..	3	100%
31	M.	T.	4	3 2 9	4 12 9	54 hrs. ..	4	100%
	F.	T.	17	2 13 3	4 10 3	54 hrs. ..	17	100%
32	M.	T.	43	2 13 2	5 6 1	54 hrs. ..	40	93%
33	M.	T.	25	3 6 10	5 4 6	54 hrs. ..	25	100%
	F.	T.	16	3 2 7	4 6 0	54 hrs. ..	15	94%
34	M.	T.	24	3 4 0	4 12 4	54 hrs. ..	22	92%
	F.	T.	12	3 5 2	4 13 1	54 hrs. ..	12	100%
35	F.	T.	34	3 1 6	5 3 6	54 hrs. ..	34	100%

* Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation.—BREAKER FEEDERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	16	2 5 11	4 7 6	54 hrs. ..	15	94%
2	M.	T.	4	2 8 10	4 0 11	54 hrs. ..	3	75%
	F.	T.	4	2 10 0	4 1 8	54 hrs. ..	2	50%
3	M.	T.	10	2 3 2	4 2 9	48 hrs. ..	6	60%
	F.	T.	5	2 9 0	4 15 0	48 hrs. ..	5	100%
4	F.	T.	11	2 14 4	4 15 2	54 hrs. ..	10	91%
5	M.	T.	9	3 1 6	4 10 0	54 hrs. ..	9	100%
	F.	T.	3	3 1 6	4 10 0	54 hrs. ..	3	100%
6	M.	T.	17	3 5 6	5 9 10	54 hrs. ..	16	94%
7	M.	T.	1	2 10 9	3 15 9	54 hrs. ..	..	..
	F.	T.	2	2 12 0	4 7 0	54 hrs. ..	2	100%
8	F.	T.	16	2 12 0	5 3 4	63 hrs. ..	16	100%
9	M.	T.	9	3 6 0	5 1 6	60 hrs. ..	9	100%
	F.	T.	33	3 6 0	5 1 6	60 hrs. ..	33	100%
10	F.	T.	29	3 1 7	5 0 0	66 hrs. ..	27	93%
11	M.	T.	6	2 4 9	3 12 6	54 hrs. ..	4	67%
	F.	T.	6	2 10 3	4 1 9	54 hrs. ..	5	83%
12	F.	T.	32	3 9 4	5 5 3	54 hrs. ..	30	94%
13	M.	T.	4	2 12 0	4 5 1	60 hrs. ..	4	100%
	F.	T.	48	2 11 7	4 3 4	60 hrs. ..	46	96%
14	M.	T.	20	3 6 4	5 2 0	54 hrs. ..	18	90%
	F.	T.	57	3 1 5	4 11 7	..	52	91%
15	M.	T.	83	4 1 1	5 13 6	54 hrs. ..	80	97%
	F.	T.	6	4 2 0	5 15 2	54 hrs. ..	6	100%
16	F.	T.	50	3 1 10	4 8 10	60 hrs. ..	48	96%
17	F.	T.	56	3 3 9	4 12 0	54 hrs. ..	56	100%
18	F.	T.	32	2 13 3	4 8 0	45 hrs. ..	32	100%
19	M.	T.	11	3 1 3	4 5 3	54 hrs. ..	11	100%
	F.	T.	49	3 1 2	4 5 2	54 hrs. ..	49	100%
20	F.	T.	46	2 13 5	4 0 7	54 hrs. ..	41	89%
21	F.	T.	52	3 2 4	4 8 2	54 hrs. ..	50	96%
22	M.	T.	7	3 7 5	4 14 3	54 hrs. ..	7	100%
	F.	T.	75	3 5 10	4 14 11	54 hrs. ..	75	100%
23	M.	T.	17	3 12 10	5 8 1	54 hrs. ..	14	82%
	F.	T.	34	4 0 0	5 13 3	54 hrs. ..	34	100%
24	M.	T.	6	2 11 3	4 1 10	54 hrs. ..	1	16%
	F.	T.	43	2 12 9	4 10 10	54 hrs. ..	40	95%
25	F.	T.	99	3 6 5	4 8 9	54 hrs. ..	97	98%
26	F.	T.	22	2 10 7	4 11 8	54 hrs. ..	15	68%
27	F.	T.	88	3 11 9	5 0 0	60 hrs. ..	88	100%
28	M.	T.	24	2 9 6	4 12 8	54 hrs. ..	22	92%
	F.	T.	29	2 13 0	5 2 8	54 hrs. ..	28	97%
29	M.	T.	58	3 12 3	5 7 9	54 hrs. ..	58	100%
	F.	T.	94	3 7 3	5 5 3	54 hrs. ..	91	97%
30	M.	T.	36	3 1 0	4 10 0	54 hrs. ..	36	100%
	F.	T.	176	2 13 10	4 6 10	54 hrs. ..	172	98%
31	F.	T.	61	2 13 1	4 9 11	54 hrs. ..	61	100%
32	M.	T.	5	2 14 0	4 13 0	54 hrs. ..	5	100%
	F.	T.	39	2 13 1	5 7 4	54 hrs. ..	38	97%
33	M.	T.	21	3 3 9	5 7 9	54 hrs. ..	21	100%
	F.	T.	196	3 4 0	4 8 0	54 hrs. ..	196	100%
34	F.	T.	114	3 0 5	4 8 7	54 hrs. ..	108	95%
35	F.	T.	87	3 1 0	5 2 6	54 hrs. ..	86	99%

* Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—BREAKER RECEIVERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	See Feeders.							
2	M.	T.	1	2 12 0	4 8 3	54 hrs. ..	1	100%
	F.	T.	2	2 1 0	3 5 3	54 hrs. ..	1	50%
3	See Feeders.							
4	M.	T.	5	2 14 0	5 0 0	54 hrs. ..	5	100%
5	M.	T.	3	2 4 2	3 6 8	54 hrs. ..	..	..
	F.	T.	3	2 14 6	4 6 6	54 hrs. ..	3	100%
6	M.	T.	7	3 1 0	5 5 1	54 hrs. ..	7	100%
7	M.	T.	2	2 3 11	3 6 11	54 hrs. ..	1	50%
	F.	T.	1	2 10 0	4 5 0	54 hrs. ..	1	100%
8	F.	T.	6	2 3 0	4 4 1	63 hrs. ..	5	83%
9	F.	T.	20	3 1 2	4 11 2	60 hrs. ..	19	95%
10	F.	T.	15	3 0 0	4 15 0	66 hrs. ..	15	100%
11	M.	T.	3	2 0 0	3 6 1	54 hrs. ..	..	..
	F.	T.	3	2 9 0	4 1 0	54 hrs. ..	3	100%
12	F.	T.	56	3 5 4	5 2 3	..	56	100%
	F.†	T.	†93	3 11 0	5 8 5	..	91	98%
13	See Feeders.							
14	See Feeders.							
15	See Feeders.							
16	See Feeders.							
17	See Feeders.							
18	F.	T.	16	2 9 9	4 4 0	45 hrs. ..	16	100%
19	See Feeders.							
20	See Feeders.							
21	F.	T.	21	3 2 6	4 8 6	54 hrs. ..	21	100%
22	M.	T.	3	3 2 6	4 10 3	54 hrs. ..	3	100%
	F.	T.	46	3 2 6	4 10 1	..	46	100%
23	M.	T.	11	4 4 8	6 1 6	54 hrs. ..	10	90%
24	M.	T.	2	3 2 0	5 2 6	54 hrs. ..	2	100%
	F.	T.	22	2 11 9	4 10 5	54 hrs. ..	21	95%
25	See Feeders.							
26	M.	T.	11	2 11 0	5 0 5	54 hrs. ..	8	73%
27	F.	T.	160	3 4 9	4 9 0	60 hrs. ..	160	100%
28	See Feeders.							
29	See Feeders.							
30	See Feeders.							
31	F.	T.	6	2 9 9	4 4 3	54 hrs. ..	6	100%
32	M.	T.	8	2 10 3	4 7 0	54 hrs. ..	7	88%
	F.	T.	17	2 11 11	5 5 2	54 hrs. ..	16	94%
33	See Feeders							
34	M.	T.	6	3 15 10	5 5 8	54 hrs. ..	6	100%
	F.	T.	37	2 11 10	4 5 0	..	36	97%
35	..	..	..	..	..	..	..	..

†The samples have worked in the capacity of Drawing Feeders & Receivers also.

* Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—FINISHER FEEDERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	13	2 6 6	4 2 4	54 hrs. ..	12	92%
2	M.	T.	4	2 12 0	4 8 3	54 hrs. ..	4	100%
3	M.	T.	10	2 7 7	4 12 4	48 hrs. ..	6	60%
	F.	T.	10	2 6 11	4 11 1	48 hrs. ..	9	90%
4	M.	T.	4	2 9 6	4 6 3	54 hrs. ..	3	75%
	F.	T.	4	2 14 0	5 0 0	54 hrs. ..	4	100%
5	M.	T.	4	3 1 6	4 10 0	54 hrs. ..	4	100%
	F.	T.	14	3 1 6	4 10 0	54 hrs. ..	14	100%
6	M.	T.	12	3 0 0	5 3 5	54 hrs. ..	12	100%
7	M.	T.	1	2 14 0	4 9 0	54 hrs. ..	1	100%
	F.	T.	3	2 11 10	4 4 2	54 hrs. ..	1	33%
8	F.	T.	1	2 8 0	3 14 3	63 hrs. ..	1	100%
9	F.	T.	52	3 1 2	4 11 3	60 hrs. ..	49	94%
10	M.	T.	1	3 10 6	5 12 0	54 hrs. ..	1	100%
	F.	T.	16	3 5 0	5 5 4	54 hrs. ..	16	100%
11	M.	T.	10	2 6 10	4 1 11	54 hrs. ..	8	80%
	F.	T.	10	2 9 0	4 1 0	54 hrs. ..	10	100%
12	..	..	..	..	..	..	..	
13	M.	T.	16	2 11 3	4 2 11	60 hrs. ..	15	94%
	F.	T.	32	2 12 0	4 4 0	..	32	100%
14	..	..	..	..	..	..	..	
15	M.	T.	43	3 15 11	5 11 10	54 hrs. ..	40	93%
16	F.	T.	11	3 11 6	5 3 6	54 hrs. ..	11	100%
17	..	..	..	..	..	..	..	
18	F.	T.	25	2 9 2	4 3 2	45 hrs. ..	24	96%
19	F.	T.	65	3 1 3	4 5 3	54 hrs. ..	65	100%
20	..	..	..	..	..	..	..	
21	M.	T.	4	3 5 3	4 11 5	54 hrs. ..	4	100%
	F.	T.	83	3 2 5	4 7 7	54 hrs. ..	82	99%
22	..	..	..	..	..	..	..	
23	M.	T.	12	4 3 5	5 15 0	54 hrs. ..	9	75%
	F.	T.	3	4 8 0	6 6 3	..	3	100%
24	M.	T.	9	3 2 0	5 2 6	54 hrs. ..	9	100%
	F.	T.	48	2 9 5	4 5 2	..	39	81%
25	F.	T.	75	3 4 10	4 8 1	54 hrs. ..	71	95%
26	M.	T.	15	2 7 4	4 10 10	54 hrs. ..	13	87%
	F.	T.	15	2 10 6	5 1 8	54 hrs. ..	14	93%
27	F.	T.	51	3 4 9	4 9 0	60 hrs. ..	51	100%
28	M.	T.	39	2 10 4	4 12 11	54 hrs. ..	35	90%
	F.	T.	26	2 7 10	4 9 10	54 hrs. ..	21	81%
29	F.	T.	95	3 1 3	4 12 3	54 hrs. ..	92	97%
30	..	..	..	..	..	54 hrs. ..	..	
31	M.	T.	6	3 4 6	4 13 9	54 hrs. ..	6	100%
32	F.	T.	44	2 10 8	6 0 11	54 hrs. ..	38	86%
33	..	..	..	..	..	..	..	
34	F.	T.	121	2 15 1	4 2 5	54 hrs. ..	114	94%
35	..	..	..	..	..	..	..	

* Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—FINISHER RECEIVERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	See Feeders.							
2	M.	T.	1	1 5 3	2 1 3	54 hrs. ..	..	..
	F.	T.	2	2 10 6	4 6 9	,, ..	2	100%
3	See Feeders.							
4	See Feeders.							
5	M.	T.	4	2 10 8	4 0 8	54 hrs. ..	..	..
	F.	T.	4	2 14 6	4 6 6	,, ..	4	100%
6	M.	T.	12	2 14 2	4 13 1	,, ..	9	75%
7	No Receivers.							
8	F.	T.	9	2 4 6	4 4 10	63 hrs. ..	8	89%
9	See Feeders.							
10	F.	T.	15	2 14 1	4 11 6	54 hrs. ..	14	93%
11	No Receivers.							
12	,,		..	..	..	..	..	
13	See Feeders.							
14	See Feeders.							
15	See Feeders.							
16	F.	T.	11	3 2 0	4 9 0	54 hrs. ..	11	100%
17			..	..	..	..	..	
18	See Feeders.							
19	See Feeders.							
20			..	..	..	..	..	
21	See Feeders.							
22			..	..	..	..	..	
23	M.	T.	9	3 8 3	5 4 6	54 hrs. ..	9	100%
24	See Feeders.							
25	See Feeders.							
26	See Feeders.							
27	See Feeders.							
28	See Feeders.							
29	See Feeders.							
30			..	..	..	..	..	
31	M.	T.	4	3 12 9	5 6 9	54 hrs. ..	4	100%
32	See Feeders.							
33			..	..	..	..	..	
34	See Feeders.							
35	..	..	..	..	..	..	..	

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—DRAWING FEEDERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	21	2 5 9	4 1 3	54 hrs. ..	17	81%
2	M.	T.	5	2 7 7	4 0 8	54 hrs. ..	4	80%
	F.	T.	6	2 12 0	4 8 3	54 hrs. ..	6	100%
3	M.	T.	24	2 3 2	4 3 7	48 hrs. ..	16	67%
	F.	T.	15	2 9 0	4 15 0	48 hrs. ..	15	100%
4	M.	T.	24	2 12 6	4 13 3	54 hrs. ..	23	96%
	F.	T.	23	2 13 0	4 13 0	54 hrs. ..	21	91%
5	M.	T.	8	2 13 0	4 3 11	54 hrs. ..		
	F.	T.	8	3 0 0	4 8 6	54 hrs. ..	8	100%
6	M.	T.	14	2 14 7	4 15 3	54 hrs. ..	13	93%
	F.	T.	1	3 0 0	5 0 0	54 hrs. ..	1	100%
7	F.	T.	2	2 10 5	4 2 5	54 hrs. ..	1	50%
8	F.	T.	14	2 6 6	4 10 6	63 hrs. ..	13	93%
9	F.	T.	115	3 1 6	4 11 11	60 hrs. ..	112	97%
10	F.	T.	40	3 4 11	5 5 1	54 hrs. ..	40	100%
11	M.	T.	20	1 5 3	3 2 3	54 hrs. ..	7	35%
	F.	T.	20	2 6 5	3 12 11	54 hrs. ..	16	80%
12	..	..	..	..	..	..	..	..
13	M.	T.	40	2 11 2	4 3 3	54 hrs. ..	38	95%
	F.	T.	55	2 11 2	4 2 9	54 hrs. ..	53	96%
14	M.	T.	11	3 5 11	5 1 4	54 hrs. ..	10	91%
	F.	T.	55	3 0 1	4 9 6	54 hrs. ..	47	85%
15	M.	T.	105	4 0 7	5 11 11	54 hrs. ..	95	91%
16	M.	T.	2	3 6 9	4 14 3	54 hrs. ..	2	100%
	F.	T.	88	3 7 9	4 15 4	54 hrs. ..	88	100%
17	F.	T.	54	3 3 9	4 12 4	54 hrs. ..	54	100%
18	F.	T.	104	2 9 9	4 4 0	45 hrs. ..	104	100%
19	F.	T.	143	3 0 4	4 4 0	54 hrs. ..	140	98%
20	M.	T.	13	3 5 2	4 7 4	54 hrs. ..	11	85%
	F.	T.	66	3 1 0	4 4 9	54 hrs. ..	64	97%
21	F.	T.	106	3 5 9	4 11 7	54 hrs. ..	105	99%
22	M.	T.	3	3 2 6	4 10 3	54 hrs. ..	3	100%
	F.	T.	53	3 0 10	4 8 7	54 hrs. ..	51	97%
23	M.	T.	36	3 15 1	5 10 8	54 hrs. ..	34	94%
	F.	T.	27	4 9 2	6 7 9	54 hrs. ..	27	100%
24	M.	T.	10	2 8 6	4 4 0	54 hrs. ..	8	80%
	F.	T.	113	2 10 5	4 7 9	54 hrs. ..	104	92%
25	F.	T.	156	3 1 10	4 5 1	54 hrs. ..	153	98%
26	F.	T.	61	2 10 8	5 1 1	54 hrs. ..	54	88%
27	F.	T.	274	3 4 9	4 9 0	60 hrs. ..	274	100%
28	M.	T.	6	2 10 9	4 15 0	54 hrs. ..	6	100%
	F.	T.	137	2 11 6	4 15 11	54 hrs. ..	132	96%
29	M.	T.	16	3 3 3	4 13 8	54 hrs. ..	16	100%
	F.	T.	156	3 1 8	4 13 3	54 hrs. ..	154	99%
30	F.	T.	112	2 12 4	4 4 7	54 hrs. ..	107	96%
31	F.	T.	69	2 9 9	4 6 3	54 hrs. ..	69	100%
32	M.	T.	16	2 9 7	4 6 4	54 hrs. ..	15	94%
	F.	T.	48	2 10 3	5 0 4	54 hrs. ..	40	83%
33	M.	T.	28	3 3 9	5 7 9	54 hrs. ..	28	100%
	F.	T.	165	3 4 0	4 8 0	54 hrs. ..	165	100%
34	M.	T.	7	3 15 3	5 14 0	54 hrs. ..	7	100%
	F.	T.	275	2 2 11	4 1 9	54 hrs. ..	260	95%
35	F.	T.	230	2 13 1	4 13 10	54 hrs. ..	225	98%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—DRAWING RECEIVERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime. allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	See Feeders.							
2	M.	T.	6	2 5 10	3 13 6	54 hrs. ..	5	82%
	F.	T.	6	2 10 6	4 6 9	..	6	100%
3	See Feeders.							
4	See Feeders.							
5	M.	T.	8	2 10 0	4 1 6	54 hrs. ..	8	100%
	F.	T.	8	2 10 0	4 1 6		8	100%
6	M.	T.	17	2 13 0	4 13 3	54 hrs. ..	14	82%
	F.	T.	1	3 0 0	5 0 0	.. ..	1	100%
7	M.	T.	1	2 12 0	4 7 0	54 hrs. ..	1	100%
8	F.	T.	8	2 3 11	4 6 3	63 hrs. ..	7	88%
9	See Feeders.							
10	F.	T.	42	3 0 0	4 15 0	54 hrs. ..	42	100%
11	..		..	..	..	..	..	
12	..		..	..	..	..	..	
13	See Feeders.							
14	See Feeders.							
15	See Feeders.							
16	See Feeders.							
17	See Feeders.							
18	See Feeders.							
19	See Feeders.							
20	See Feeders.							
21	See Feeders.							
22	See Feeders.							
23	M	T	4	3 2 6	4 10 3	54 hrs. ..	4	100%
	F	T	56	3 2 6	4 10 0	..	56	100%
24	F	T	42	3 12 9	5 9 6	54 hrs. ..	42	100%
25	See Feeders.							
26	See Feeders.							
27	See Feeders.							
28	See Feeders.							
29	See Feeders.							
30	See Feeders.							
31	M	T	3	3 8 3	5 8 9	54 hrs. ..	3	100%
	F	T	65	2 9 9	4 6 2	..	65	100%
32	M	T	9	2 12 0	4 10 3	54 hrs. ..	9	100%
	F	T	61	2 10 10	5 0 11		54	89%
33	See Feeders.							
34	See Feeders.							
35	See Feeders.							

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—ROVING FEEDERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No. 8	%age.
				Rs. A. P	Rs. A. P.			
1	M.	T.	12	2 5 4	4 6 3	54 hrs. ..	11	92%
2	M.	T.	1	2 4 9	3 9 0	54 hrs. ..	..	..
	F.	T.	6	2 7 2	3 15 4	54 hrs. ..	4	67%
3	M.	T.	10	2 8 4	4 13 8	48 hrs. ..	9	90%
	F.	T.	6	2 9 0	4 15 0	48 hrs. ..	6	100%
4	M.	T.	8	2 14 0	5 0 0	54 hrs. ..	8	100%
	F.	T.	11	2 14 0	5 0 0	54 hrs. ..	11	100%
5	M.	T.	5	3 3 0	4 11 6	54 hrs. ..	5	100%
	F.	T.	5	3 3 0	4 11 6	54 hrs. ..	5	100%
6	M.	T.	13	2 15 2	5 1 6	54 hrs. ..	10	77%
	F.	T.	7	3 5 0	5 5 9	54 hrs. ..	7	100%
7	M.	T.	1	2 14 0	4 9 0	54 hrs. ..	1	100%
	F.	T.	2	2 13 9	4 6 3	54 hrs. ..	1	50%
8	F.	T.	14	2 8 0	4 14 2	63 hrs. ..	14	100%
9	M.	T.	10	5 1 3	7 0 6	60 hrs. ..	10	100%
	F.	T.	44	3 6 0	5 0 7	60 hrs. ..	42	95%
10	F.	T.	29	3 9 9	5 3 9	54 hrs. ..	29	100%
11	M.	T.	8	2 2 0	3 8 6	54 hrs. ..	2	25%
	F.	T.	8	2 9 3	4 0 4	54 hrs. ..	7	88%
12	F.	T.	39	3 2 6	4 14 6	60 hrs. ..	39	100%
13	M.	T.	10	2 12 0	4 3 11	60 hrs. ..	10	100%
	F.	T.	30	2 11 5	4 3 2	60 hrs. ..	29	97%
14	M.	T.	1	3 6 0	5 1 6	54 hrs. ..	1	100%
	F.	T.	36	2 15 11	4 8 9	54 hrs. ..	32	89%
15	M.	T.	65	4 10 1	6 7 9	54 hrs. ..	64	98%
16	F.	T.	44	3 2 0	4 9 0	54 hrs. ..	44	100%
17	F.	T.	23	3 3 9	4 13 6	54 hrs. ..	23	100%
18	F.	T.	34	2 13 3	4 8 0	45 hrs. ..	34	100%
19	F.	T.	40	3 2 8	4 6 7	54 hrs. ..	40	100%
20	F.	T.	34	3 3 11	4 7 11	54 hrs. ..	34	100%
21	M.	T.	10	4 13 3	7 5 6	54 hrs. ..	10	100%
	F.	T.	48	3 4 7	4 9 10	54 hrs. ..	45	94%
22	M.	T.	4	3 2 6	4 10 3	54 hrs. ..	4	100%
	F.	T.	44	3 2 6	4 9 9	54 hrs. ..	44	100%
23	M.	T.	15	3 15 3	5 10 1	54 hrs. ..	13	87%
	F.	T.	30	3 15 7	5 11 5	54 hrs. ..	28	93%
24	F.	T.	38	2 11 10	4 9 1	54 hrs. ..	34	89%
25	F.	T.	87	3 5 2	4 10 11	54 hrs. ..	85	98%
26	F.	T.	22	2 9 10	4 14 10	54 hrs. ..	19	86%
27	F.	T.	111	3 11 9	5 0 0	60 hrs. ..	111	100%
28	F.	T.	55	2 12 0	5 1 3	54 hrs. ..	53	96%
29	M.	T.	2	3 12 3	5 13 3	54 hrs. ..	2	100%
	F.	T.	86	3 6 9	5 4 11	54 hrs. ..	86	100%
30	M.	T.	18	3 2 3	4 11 0	54 hrs. ..	18	100%
	F.	T.	34	3 1 9	4 9 9	54 hrs. ..	33	97%
31	F.	T.	60	2 13 1	4 10 3	54 hrs. ..	60	100%
32	M.	T.	17	2 6 4	3 15 6	54 hrs. ..	12	71%
	F.	T.	31	2 8 5	5 2 3	54 hrs. ..	26	84%
33	M.	T.	9	3 3 9	5 7 9	54 hrs. ..	9	100%
	F.	T.	60	3 4 0	4 8 0	54 hrs. ..	60	100%
34	M.	T.	2	3 15 3	5 14 0	54 hrs. ..	2	100%
	F.	T.	111	3 2 4	4 6 7	54 hrs. ..	104	97%
35	M.	T.	1	3 1 0	5 2 6	54 hrs. ..	1	100%
	F.	T.	102	3 2 3	5 4 0	54 hrs. ..	102	100%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—ROVERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	7	3 8 7	5 12 5	54 hrs. ..	6	86%
2	M.	T.	7	2 13 1	4 6 5	54 hrs. ..	6	86%
3	M.	P.	7	2 12 6	4 14 0	48 hrs. ..	5	71%
	F.	T.	5	3 3 1	5 9 5	48 hrs. ..	4	80%
4	M.	T.	15	3 10 0	6 0 0	54 hrs. ..	15	100%
5	M.	T.	8	4 1 3	5 11 3	54 hrs. ..	8	100%
6	M.	T.	16	3 7 0	5 15 11	54 hrs. ..	14	88%
7	M.	T.	2	3 11 0	5 4 2	54 hrs. ..	2	100%
8	M.	T.	12	3 1 9	5 10 10	63 hrs. ..	11	92%
9	M.	T.	19	4 8 5	6 4 5	60 hrs. ..	16	84%
10	M.	T.	23	4 3 7	6 7 3	54 hrs. ..	23	100%
11	M.	T.	15	3 3 6	4 12 1	54 hrs. ..	7	57%
12	M.	T.	19	4 11 0	6 11 3	54 hrs. ..	19	100%
13	M.	T.	25	3 10 3	5 7 11	54 hrs. ..	23	92%
14	M.	T.	18	3 14 9	5 10 2	54 hrs. ..	14	80%
15	M.	T.	31	4 15 1	6 13 5	54 hrs. ..	31	100%
16	M.	T.	36	4 1 3	5 9 6	54 hrs. ..	36	100%
17	M.	T.	14	4 1 3	5 15 1	54 hrs. ..	14	100%
18	M.	T.	27	4 5 0	6 2 0	45 hrs. ..	27	100%
19	M.	T.	34	4 6 6	5 10 3	54 hrs. ..	31	91%
20	M.	T.	17	3 12 3	5 0 0	54 hrs. ..	17	100%
21	M.	T.	27	5 7 8	6 11 2	54 hrs. ..	27	100%
22	M.	T.	41	4 0 0	5 8 8	54 hrs. ..	41	100%
23	M.	T.	24	4 11 10	6 8 11	54 hrs. ..	21	88%
24	M.	T.	33	3 14 4	6 1 4	54 hrs. ..	33	100%
25	M.	T.	49	4 4 4	5 7 11	54 hrs. ..	47	96%
26	M.	T.	16	3 1 4	5 8 2	54 hrs. ..	11	69%
27	M.	T.	87	4 15 9	6 4 0	60 hrs. ..	87	100%
28	M.	T.	35	3 3 8	5 10 0	54 hrs. ..	29	83%
29	M.	T.	45	4 13 1	7 4 4	54 hrs. ..	44	98%
30	M.	T.	42	3 14 0	5 7 10	54 hrs. ..	41	98%
31	M.	T.	52	4 5 0	6 3 10	54 hrs. ..	52	100%
32	M.	T.	25	3 8 10	6 12 6	54 hrs. ..	23	92%
33	M.	T.	55	4 1 3	5 15 1	54 hrs. ..	55	100%
34	M.	T.	76	4 0 11	5 7 8	54 hrs. ..	72	95%
35	M.	T.	61	3 15 0	6 4 6	54 hrs. ..	61	100%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—ROVING SHIFTERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Averages Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No. 8	%age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	13	3 0 8	5 4 6	54 hrs. ..	12	92%
2	M.	T.	13	3 3 0	5 0 0	54 hrs. ..	13	100%
3	M.	T.	16	2 7 11	4 12 11	48 hrs. ..	13	81%
4	M.	T.	20	3 6 0	5 11 0	54 hrs. ..	20	100%
5	M.	T.	12	3 10 1	5 2 11	54 hrs. ..	11	92%
6	M.	T.	27	3 4 2	5 12 10	..	25	93%
7	..	..	..	..	..	..	..	
8	M.	T.	2	2 6 0	4 1 2	63 hrs. ..	1	50%
9	M.	T.	132	3 8 6	5 3 2	60 hrs. ..	116	88%
10	M.	T.	32	3 10 6	5 12 0	54 hrs. ..	32	100%
11	M.	T.	12	2 13 9	4 5 6	54 hrs. ..	9	75%
12	M.	T.	45	3 12 9	5 10 6	60 hrs. ..	44	98%
13	M.	T.	30	3 2 0	4 11 4	60 hrs. ..	30	100%
14	None.	..	..	..	..	..	..	
15	M.	T.	47	4 9 9	6 7 2	54 hrs. ..	44	94%
16	M.	T.	57	3 14 0	5 6 0	54 hrs. ..	57	100%
17	M.	T.	24	3 10 8	5 2 8	54 hrs. ..	23	96%
18	M.	T.	25	3 6 5	5 4 0	45 hrs. ..	23	92%
19	M.	T.	41	4 5 9	5 9 10	54 hrs. ..	38	93%
20	M.	T.	42	3 7 8	4 11 10	54 hrs. ..	38	90%
21	M.	T.	124	4 13 3	6 4 0	54 hrs. ..	124	100%
22	M.	T.	43	3 13 2	5 5 5	54 hrs. ..	43	100%
23	M.	T.	44	3 9 3	5 8 0	54 hrs. ..	40	91%
24	..	..	..	..	..	..	..	
25	M.	T.	81	3 12 11	5 1 0	54 hrs. ..	81	100%
26	M.	T.	24	2 15 7	5 5 11	54 hrs. ..	19	79%
27	M.	T.	89	4 7 6	5 11 6	60 hrs. ..	89	100%
28	M.	T.	41	2 12 5	4 14 9	54 hrs. ..	31	76%
29	M.	T.	26	3 11 7	5 10 6	54 hrs. ..	23	89%
30	M.	T.	46	3 3 2	4 10 2	54 hrs. ..	44	96%
31	M.	T.	69	4 3 4	6 4 8	54 hrs. ..	69	100%
32	M.	T.	146	3 10 1	7 2 2	54 hrs. ..	135	92%
33	M.	T.	74	3 10 8	5 1 6	54 hrs. ..	73	99%
34	M.	T.	41	3 11 6	5 3 5	54 hrs. ..	40	98%
35	M.	T.	51	3 4 6	5 7 6	54 hrs. ..	51	100%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—SPINNERS (HESSIAN).

Unit No.	Sex.	P. or T.	Number of Workers	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	64	3 14 0	6 5 9	54 hrs. ..	58	91%
2	..	..	..	..	..	..	..	
3	M.	T.	108	3 14 8	6 10 10	48 hrs. ..	94	87%
4	M.	T.	144	4 1 11	6 6 10	54 hrs. ..	117	81%
5	..	..	..	..	..	..	..	
6	M.	T.	107	4 3 4	6 9 1	54 hrs. ..	85	77%
7	M.	T.	22	3 14 1	5 2 11	54 hrs. ..	8	36%
8	M.	T.	97	4 2 1	7 15 7	63 hrs. ..	89	92%
9	M.	T.	145	4 13 6	6 9 1	..	113	78%
10	..	..	..	..	..	..	..	
11	M.	T.	111	3 12 2	6 3 3	54 hrs. ..	79	71%
12	M.	T.	275	4 13 4	7 5 9	54 hrs. ..	261	95%
	F.	T.	7	4 4 11	6 9 6	54 hrs. ..	6	86%
13	M.	T.	45	4 8 4	6 2 7	60 hrs. ..	39	87%
14	M.	T.	169	4 7 0	6 1 10	54 hrs. ..	144	85%
15	M.(warp)	T.	116	5 5 8	7 1 10	54 hrs. ..	90	78%
	M.(weft)	T.	91	5 12 4	8 0 2	54 hrs. ..	71	78%
16	M.	T.	147	4 5 3	5 13 9	54 hrs. ..	147	100%
17	M.	T.	104	4 8 4	5 15 11	54 hrs. ..	92	88%
18	M.(warp)	T.	42	4 7 9	6 5 0	54 hrs. ..	42	100%
	M.(weft)	T.	39	4 9 1	6 5 9	54 hrs. ..	37	95%
19	M.	T.	108	4 11 7	5 15 5	54 hrs. ..	106	98%
20	M.	T.	53	4 12 6	6 0 3	54 hrs. ..	42	80%
21	M.(warp)	T.	82	5 6 2	7 0 2	54 hrs. ..	75	91%
	M.(weft)	T.	71	5 9 2	6 15 3	..	65	81%
22	M.	T.	338	4 13 2	6 6 7	54 hrs. ..	323	96%
23	M.(warp)	T.	62	4 7 10	6 6 2	54 hrs. ..	62	100%
	M.(weft)	T.	90	5 9 10	7 10 4	..	89	99%
24	M.	T.	188	4 8 0	8 8 9	54 hrs. ..	154	82%
25	M.	T.	171	4 15 5	6 3 6	54 hrs. ..	171	100%
26	M.	T.	90	3 15 0	6 7 0	54 hrs. ..	53	59%
27	M.	T.	440	4 14 3	6 0 0	60 hrs. ..	401	91%
28	M.	T.	129	3 13 5	6 8 4	54 hrs. ..	95	74%
29	M.	T.	519	4 13 7	7 3 6	54 hrs. ..	488	94%
30	M.	T.	146	4 2 9	5 14 0	54 hrs. ..	139	95%
31	M.	T.	125	4 3 11	6 6 5	54 hrs. ..	113	90%
32	M.(warp)	T.	66	3 14 2	6 10 11	54 hrs. ..	48	73%
	M.(weft)	T.	87	4 1 11	8 2 7	..	76	87%
33	M.	T.	508	4 13 2	6 9 11	54 hrs. ..	501	99%
34	M.	T.	739	5 0 5	6 5 9	54 hrs. ..	689	93%
35	M.	T.	397	4 3 2	6 9 4	54 hrs. ..	378	95%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—SPINNERS. (SACKING).

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	See Hessian		..	..	..	..	..	..
2	M.(weft)	T.	35	4 6 11	6 10 0	54 hrs. ..	26	74%
	M.(warp)	T.	33	3 7 6	5 8 3	54 hrs. ..	18	55%
3	M.	T.	23	4 0 5	6 11 8	48 hrs. ..	17	74%
4	M.	T.	39	4 10 6	7 5 0	54 hrs. ..	36	92%
5	M.(weft)	T.	26	4 14 0	6 9 3	54 hrs. ..	26	100%
	M.(warp)	T.	74	4 5 0	5 15 3	..	74	100%
6	See Hessian		..	..	..	..	..	..
7	do.		..	..	..	..	..	..
8	M.(weft)	T.	25	4 3 9	7 4 8	63 hrs. ..	24	96%
	M.(warp)	T.	17	4 4 0	7 7 3	63 hrs. ..	17	100%
9	M.	T.	93	4 7 7	6 1 8	..	68	73%
10	None	..	..	..	..	..	..	..
11	None	..	..	..	..	..	..	..
12	None	..	..	..	..	..	..	..
13	M.	T.	117	4 1 10	5 11 4	54 hrs. ..	98	84%
14	See Hessian		..	..	..	..	..	..
15	M.(weft)	T.	93	6 0 4	8 0 8	54 hrs. ..	81	87%
	M.(warp)	T.	59	5 5 9	7 3 6	..	49	83%
16	M.(weft)	T.	114	4 14 4	6 6 11	54 hrs. ..	106	93%
	M.(warp)	T.	90	4 1 0	5 5 8	..	83	92%
17	M.(weft)	T.	40	5 1 5	6 10 1	54 hrs. ..	30	75%
	M.(warp)	T.	15	4 4 6	5 10 8	..	13	87%
18	M.(weft)	T.	57	4 15 6	6 13 6	54 hrs. ..	57	100%
	M.(warp)	T.	53	4 7 9	6 5 0	..	53	100%
19	M.(weft)	T.	49	4 15 7	6 3 5	54 hrs. ..	48	99%
	M.(warp)	T.	48	4 11 9	5 15 7	..	47	99%
20	M.(weft)	T.	86	5 5 2	6 9 3	54 hrs. ..	72	84%
	M.(warp)	T.	35	4 7 4	5 11 5	..	32	62%
21	M.(weft)	T.	67	5 5 3	6 12 6	54 hrs. ..	67	100%
	M.(warp)	T.	51	5 5 11	6 14 9	..	49	96%
22	See Hessian		..	..	..	..	..	..
23	M.	T.	170	5 10 2	7 10 10	54 hrs. ..	164	96%
24	See Hessian		..	..	..	..	..	..
25	M.	T.	369	4 12 11	6 2 1	54 hrs. ..	360	98%
26	M.	T.	43	4 10 6	7 15 7	54 hrs. ..	33	77%
27	M.	T.	300	5 3 1	6 6 8	60 hrs. ..	262	87%
28	M.	T.	130	4 3 11	7 0 4	54 hrs. ..	104	80%
29	See Hessian		..	..	..	..	..	..
30	M.	T.	224	4 6 7	6 0 5	54 hrs. ..	213	95%
31	M.	T.	158	4 8 7	6 12 0	54 hrs. ..	141	89%
32	M.	T.	174	3 14 6	7 5 6	54 hrs. ..	135	78%
33	See Hessian		..	..	..	..	..	..
34	do.		..	..	..	..	..	..
35	M.	T.	360	4 10 2	7 3 6	54 hrs. ..	350	97%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—SPINNING SHIFTERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	36	3 0 9	5 9 2	54 hrs. ..	32	89%
2	M.	T.	40	3 4 8	5 5 6	54 hrs. ..	35	88%
3	M.	T.	60	2 10 11	5 3 2	48 hrs. ..	56	93%
4	M.	T.	101	3 9 8	5 14 2	54 hrs. ..	88	87%
5	M.	T.	48	3 10 6	5 3 9	54 hrs. ..	48	100%
6	M.	T.	74	3 3 6	5 8 6	..	69	93%
7	M.	T.	15	3 8 0	5 2 6	54 hrs. ..	15	100%
8	M.	T.	69	2 15 3	5 5 9	54 hrs. ..	64	93%
9	M.	T.	80	3 8 11	5 2 3	54 hrs. ..	66	83%
10	M.	T.	127	3 10 3	5 11 6	54 hrs. ..	126	99%
11	M.	T.	66	2 15 10	4 8 4	54 hrs. ..	38	58%
12	M.	T.	107	3 15 6	6 4 8	66 hrs. ..	101	94%
13	..	..	..	..	..	..	..	..
14	M.	T.	117	3 12 8	5 12 3	54 hrs. ..	110	94%
15	M.	T.	255	3 10 9	5 9 0	54 hrs. ..	214	84%
16	M.	T.	181	3 9 1	5 3 3	54 hrs. ..	176	97%
17	M.	T.	104	3 10 9	5 1 11	54 hrs. ..	92	88%
18	M.	T.	121	3 12 6	6 1 0	54 hrs. ..	121	100%
19	M.	T.	157	4 7 6	5 11 6	54 hrs. ..	157	100%
20	M.	T.	123	3 10 8	4 14 11	54 hrs. ..	106	86%
21	M.	T.	92	4 11 1	6 1 4	54 hrs. ..	87	95%
22	M.	T.	228	4 1 4	5 10 0	54 hrs. ..	228	100%
23	M.	T.	205	3 9 5	5 4 4	54 hrs. ..	181	88%
24	M.	T.	165	3 1 7	5 5 7	54 hrs. ..	125	76%
25	M.	T.	273	4 1 6	5 5 6	54 hrs. ..	273	100%
26	M.	T.	94	2 13 4	5 0 10	54 hrs. ..	66	70%
27	M.	T.	240	4 2 2	5 6 1	60 hrs. ..	230	96%
28	M.	T.	181	3 4 9	5 13 0	54 hrs. ..	157	87%
29	M.	T.	247	3 14 4	6 3 7	54 hrs. ..	238	97%
30	M.	T.	210	3 6 6	4 15 8	54 hrs. ..	207	99%
31	M.	T.	210	4 2 1	6 2 4	54 hrs. ..	206	98%
32	M.	T.	139	3 11 6	7 2 8	54 hrs. ..	124	89%
33	M.	T.	502	3 14 3	5 5 3	54 hrs. ..	502	100%
34	M.	T.	410	4 10 9	5 15 7	54 hrs. ..	390	95%
35	M.	T.	390	3 6 4	5 9 3	54 hrs. ..	378	97%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—COP WINDERS.

Unit No.	Sex.	P. or T.	Number of Workers	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	P.	20	4 3 2	5 14 1	54 hrs. ..	17	85%
2	M.	P.	12	4 1 6	6 5 6	54 hrs. ..	11	92%
3	M.	P.	40	4 15 11	7 7 4	48 hrs. ..	31	78%
4	M.	P.	56	4 9 9	6 6 10	54 hrs. ..	50	89%
5	M.	P.	24	4 7 3	6 1 8	54 hrs. ..	22	92%
6	M.	P.	59	4 3 2	5 6 4	..	55	93%
7	M.	P.	4	6 14 0	7 14 0	54 hrs. ..	4	100%
8	M.	P.	34	4 12 7	7 4 2	63 hrs. ..	31	91%
9	M.	P.	81	5 5 2	6 10 4	54 hrs.	79	98%
10	M.	P.	70	4 0 4	5 7 1	..	69	99%
11	M.(H.)	P.	32	3 3 3	5 3 5	54 hrs. ..	25	78%
	M.(S.)	P.	8	4 13 2	7 4 6	..	8	100%
12	M.(H.)	P.	59	4 12 6	6 5 3	54 hrs. ..	59	100%
	M.(S.)	P.	68	5 12 6	7 6 2	..	68	100%
13	M.(H.)	P.	52	4 4 4	5 14 5	54 hrs. ..	47	90%
	M.(S.)	P.	44	4 14 6	6 8 10	54 hrs. ..	37	84%
14	..	..	..	..	..	..	..	
15	M.	P.	180	4 4 4	5 8 10	60 hrs. ..	153	85%
16	M.	P.	98	5 5 10	6 1 3	55 hrs. ..	95	97%
17	M.(H.)	P.	28	5 2 10	6 9 2	55 hrs. ..	24	86%
	M.(S.)	P.	26	4 10 0	5 15 10	55 hrs. ..	22	85%
18	M.(H.)	P.	42	2 8 6	4 6 6	54 hrs. ..	42	100%
	M.(S.)	P.	15	3 5 7	5 2 8	..	15	100%
19	M.(H.)	P.	70	4 8 2	5 15 3	54 hrs. ..	69	99%
	M.(S.)	P.	52	5 0 2	6 8 5	..	51	98%
20	M.	P.	78	4 4 7	5 14 10	54 hrs. ..	71	91%
21	M.	P.	149	5 15 6	8 0 8	54 hrs. ..	144	96%
22	M.	P.	125	4 15 1	6 4 10	56½, 57 hrs.	123	99%
23	M.(H.)	P.	95	5 11 2	7 9 7	54 hrs. ..	92	97%
	M.(S.)	P.	61	5 13 4	7 13 5	..	59	97%
24	M.	P.	109	4 5 6	6 6 2	54 hrs. ..	99	91%
25	M.	P.	190	4 9 4	5 10 1	54 hrs. ..	152	80%
26	M.	P.	61	4 7 0	6 7 11	54 hrs. ..	45	74%
27	M.	P.	85	3 14 11	5 1 11	54 hrs. ..	81	95%
28	M.	P.	149	4 5 2	6 4 0	54 hrs. ..	132	93%
29	M.	P.	186	8 6 0	9 10 0	65¾ hrs. ..	176	95%
30	M.	P.	114	3 14 5	5 8 2	54 hrs. ..	111	97%
31	M.	P.	106	5 9 4	7 7 0	54 hrs. ..	96	91%
32	M.	P.	309	4 4 8	6 13 2	70, 75 hrs. ..	273	88%
33	M.	P.	176	4 7 1	5 15 5	54 hrs. ..	176	100%
34	M.	P.	280	4 8 2	6 8 6	54 hrs. ..	275	98%
35	M.	P, T.	315	5 13 11	8 6 7	54 hrs. ..	315	100%

*Gross Earnings are almost the same as Net Earnings.

[redacted] Hessian.

S. = Sacking.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—WARP OR SPOOL WINDERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No.	8 %age
				Rs. A. P.	Rs. A. P.			
1	M.	P.	20	4 13 1	6 8 6	54 hrs. ..	18	90%
2	M.	P.	11	3 8 10	5 13 7	54 hrs. ..	8	73%
	F.	P.	1	2 11 0	5 3 3	54 hrs. ..	1	100%
3	M.	P.	32	3 8 5	5 10 10	48 hrs. ..	22	69%
4	M.(H.)	P.	25	4 1 8	6 1 0	54 hrs. ..	24	89%
	F.(H.)	P.	4	3 6 4	5 2 6	54 hrs. ..	4	100%
	M.(S.)	P.	18	3 12 9	5 11 9	54 hrs. ..	16	89%
5	M.	P.	16	3 5 5	4 13 6	54 hrs. ..	16	100%
	F.	P.	16	3 0 4	4 9 5	54 hrs. ..	16	100%
6	M.	P.	53	3 9 10	4 11 10	54 hrs. ..	43	81%
	F.	P.	2	3 6 11	4 10 11	54 hrs. ..	2	100%
7	M.	P.	6	2 6 9	3 8 3	54 hrs. ..	5	83%
8	M.	P.	47	3 13 3	5 12 7	63 hrs. ..	45	96%
	F.	P.	2	3 14 2	5 14 2	54 hrs.	2	100%
9	M.	P.	19	3 9 10	4 13 9	54 hrs.	18	95%
	F.	P.	92	2 15 7	3 10 1	..	92	100%
10	M.	P.	36	3 11 1	4 15 0	54 hrs. ..	34	94%
	F.	P.	24	3 4 8	4 11 7	54 hrs. ..	24	100%
11	M.	P.	27	2 15 1	4 9 8	54 hrs. ..	22	81%
	F.	P.	14	2 9 9	4 8 7	54 hrs. ..	12	86%
12	M.(H.)	P.	15	6 14 1	8 8 0	54 hrs. ..	15	100%
	M.(S.)	P.	40	6 14 2	8 5 6	54 hrs. ..	39	98%
	F.(S.)	P.	29	6 4 3	7 13 11	54 hrs. ..	25	86%
13	M.	P.	69	4 4 7	5 14 9	54 hrs. ..	62	90%
14	M.	P.	45	4 8 6	5 15 3	61 hrs. ..	40	89%
	F.	P.	21	3 8 5	4 15 0	61 hrs. ..	20	95%
15	M.	P.	149	4 12 6	6 0 11	60 hrs. ..	128	86%
	F.	P.	12	4 1 9	5 5 3	..	9	75%
16	M.	P.	107	3 9 6	5 0 3	55 hrs. ..	107	100%
17	M.	P.	16	3 10 9	5 1 6	55 hrs. ..	16	100%
	F.	P.	27	3 6 6	4 2 11	..	27	100%
18	M.	P.	55	4 6 5	6 4 1	54 hrs. ..	55	100%
	F.	P.	5	3 14 5	5 8 10	..	5	100%
19	M.	P.	80	3 8 8	5 2 0	54 hrs. ..	79	99%
	F.	P.	29	3 8 2	5 2 4	54 hrs. ..	29	100%
20	M.	P.	26	5 2 0	6 15 7	54 hrs. ..	24	92%
	F.	P.	34	4 0 0	5 9 5	..	30	88%
21	M.	P.	91	5 0 1	6 7 7	54 hrs. ..	90	99%
	F.	P.	61	4 10 4	6 0 7	..	59	97%
22	M.	P.	57	4 1 4	5 6 4	57 hrs. ..	54	95%
	F.	P.	72	4 1 3	5 6 3	..	69	96%

*Gross Earnings are almost the same as Net Earnings.

H. = Hessian. S. = Sacking.

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TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—WARP OR SPOOL WINDERS—*contd.*

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
23	M.	P.	123	7 2 11	9 3 11	54 hrs. ..	117	95%
	F.	P.	1	6 4 9	8 4 6	..	1	100%
24	M.	P.	46	3 4 11	5 1 5	54 hrs. ..	39	85%
	F.	P.	39	3 2 10	5 4 8	..	34	87%
25	M.	P.	25	3 6 8	4 11 0	54 hrs. ..	25	100%
	F.	P.	142	4 1 10	5 5 6	..	133	94%
26	M.	P.	40	3 15 6	5 14 11	54 hrs. ..	34	85%
	F.	P.	24	3 3 4	4 14 5	..	18	75%
27	M.	P.	296	4 3 4	5 13 6	54 hrs. ..	296	100%
	F.	P.	80	4 9 9	6 5 0	..	80	100%
28	M.	P.	34	3 11 6	5 9 0	54 hrs. ..	32	94%
	F.	P.	99	3 8 7	5 5 4	..	90	91%
29	M.	P.	67	6 15 8	8 6 4	54 hrs. ..	64	93%
	F.	P.	42	7 1 2	8 6 7	..	42	100%
30	M.	P.	19	3 3 8	4 12 9	54 hrs. ..	19	100%
	F.	P.	88	2 2 1	3 7 2	..	85	96%
31	M.	P.	29	4 4 2	5 15 11	54, 57 hrs. ..	26	90%
	F.	P.	80	4 2 8	5 13 6	..	73	91%
32	M.	P.	122	2 15 10	4 10 8	70, 75 hrs. ..	94	77%
	F.	P.	117	3 2 9	4 15 8	..	103	88%
33	M.	P.	87	4 2 3	5 6 3	54 hrs. ..	87	100%
	F.	P.	65	3 14 3	5 2 8	..	53	97%
34	M.	P.	125	3 8 8	5 10 4	54 hrs. ..	116	93%
	F.	P.	117	3 6 11	5 11 6	..	106	91%
35	M.	P, T.	154	6 3 1	8 5 5	54, 60 hrs. ..	152	99%
	F.	P, T.	88	5 9 2	8 15 0	..	88	100%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—BEAMERS.

Unit No.	Sex	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	T.	13	6 0 0	8 1 0	54 hrs. ..	13	100%
2	M.	P.	6	7 5 10	9 5 4	54 hrs. ..	4	67%
3	M.	T.	27	5 2 0	7 12 0	48 hrs. ..	27	100%
4	M.	P.	32	6 2 1	8 10 8	54 hrs. ..	32	100%
5	M.	P.	15	8 7 6	10 9 0	54 hrs. ..	15	100%
6	M.	P.	25	6 15 7	8 5 7	54 hrs. ..	25	100%
7	M.	P.	4	2 14 9	6 6 6	54 hrs. ..	4	100%
8	M.	T.	32	4 14 4	7 7 3	54 hrs. ..	30	91%
9	M.	T.	11	3 11 3	6 0 3	54 hrs. ..	10	99%
10	M.	T.	58	4 7 11	5 11 3	54 hrs. ..	54	93%
11	M.	P.	15	5 2 11	6 15 4	54 hrs. ..	15	100%
12	M.(H.)	T.	29	5 15 3	8 13 6	65 hrs. ..	29	100%
	M.(S.)	T.	27	6 5 0	9 5 0	65 hrs. ..	27	100%
13	M.(H.)	P.	24	5 2 6	6 13 8	60 hrs. ..	22	92%
	M.(S.)	P.	20	4 7 3	6 1 5	60 hrs. ..	19	95%
14	M.(H.)	T.	25	5 15 3	7 9 6	54 hrs. ..	25	100%
	M.(S.)	T.	13	6 5 0	7 15 6	54 hrs. ..	13	100%
15	M.	P.	128	7 7 4	8 13 1	54 hrs. ..	128	100%
16	M.	P.	57	5 8 5	7 1 11	55 hrs. ..	57	100%
17	M.	P.	24	5 13 4	7 3 8	54 hrs. ..	20	83%
18	M.	P.	26	3 7 7	5 5 1	54 hrs. ..	26	100%
19	M.(H.)	P.	55	7 2 6	8 10 8	54 hrs. ..	55	100%
	M.(S.)	P.	35	8 7 11	9 11 5	54 hrs. ..	34	97%
20	M.	P.	54	6 9 2	7 10 1	54 hrs. ..	52	91%
21	M.	T.	11	6 2 3	7 10 2	54 hrs. ..	11	100%
	M.	P.	79	7 12 5	9 4 7	54 hrs. ..	77	97%
22	M.	T.	70	6 2 2	7 7 4	54 hrs. ..	69	99%
23	M.(H.)	T.	52	8 12 2	10 14 2	54 hrs. ..	51	98%
	M.(S.)	T.	32	7 12 9	9 14 0	..	32	100%
24	M.	P.	44	6 12 4	9 3 7	54 hrs. ..	44	100%
25	M.	T.	101	6 15 10	8 6 10	54 hrs. ..	100	100%
26	M.	P.	31	5 0 2	6 6 9	54 hrs. ..	28	90%
27	M.	T.	100	6 9 3	7 13 1	60 hrs. ..	100	100%
	M.	P.	49	7 14 8	9 11 2		49	100%
28	M.	P.	71	5 6 4	6 9 3	54 hrs. ..	61	86%
29	M.	P.	77	8 15 1	10 3 0	66 hrs. ..	75	97%
30	M.	P.	66	4 4 1	5 15 3	54 hrs. ..	66	100%
31	M.	T.	87	6 2 7	8 6 0	54 hrs. ..	87	100%
32	M.	T.	7	4 5 2	7 9 11	54 hrs. ..	7	100%
	M.	P.	45	6 7 10	8 15 9	66, 72 hrs. ..	45	100%
33	M.	P.	113	6 10 10	8 0 0	54 hrs. ..	111	97%
34	M.	P.	159	6 3 0	7 11 5	54 hrs. ..	157	99%
35	M.	P., T.	244	5 11 0	8 8 6	54,60 hrs. ..	242	100%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—HESSIAN WEAVERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	P.	134	4 6 9	6 11 2	60 hrs. ..	116	87%
2	..	..	..	..	..	..	..	..
3	M.	P.	191	8 12 1	13 9 5	72 hrs. ..	167	87%
4	M.	P.	413	5 14 11	7 12 0	54 hrs. ..	408	99%
5	..	..	..	..	..	..	..	..
6	M.	P.	153	8 9 11	10 9 3	54 hrs. ..	153	100%
7	M.	P.	39	3 9 10	4 12 4	60 hrs. ..	29	74%
8	M.	P.	275	4 0 1	6 3 1	63 hrs. ..	236	87%
9	M.	P.	206	7 11 2	8 15 6	54 hrs. ..	198	96%
	M.	T.	88	6 14 8	7 0 2	..	86	98%
10	M.	P.	438	6 6 5	7 11 3	..	417	95%
11	M.	P.	250	3 7 1	4 11 0	54 hrs. ..	112	45%
12	M.	P.	403	6 0 6	7 9 9	54 hrs. ..	396	98%
13	M.	P.	352	5 5 9	9 13 9	54 hrs. ..	345	98%
	M.	T.	12	6 14 0	8 13 0	54 hrs. ..	12	100%
14	M.	P.	305	7 10 0	9 2 2	54 hrs. ..	294	96%
	M.	P.	24†	4 9 4	5 10 5	54 hrs. ..	12	50%
15	M.	P.	685	8 15 9	10 6 6	57 hrs. ..	685	100%
16	M.	P.	419	6 1 2	7 4 11	52½ hrs. ..	411	98%
17	M.	P.	194	6 9 5	8 0 10	55 hrs. ..	190	98%
18	M.	P.	306	4 5 7	6 4 5	54 hrs. ..	306	100%
19	M.	P.	577	6 3 0	8 5 3	54 hrs. ..	566	98%
20	M.	P.	262	5 12 7	7 14 5	54 hrs. ..	242	92%
	F.	P.	1	5 4 0	7 6 0	..	1	100%
21	M.	P.	808	7 10 5	9 11 0	54 hrs. ..	787	97%
22	M.	P.	451	6 8 10	7 12 7	54 hrs. ..	432	96%
23	M.	P.	606	6 15 8	8 14 10	54 hrs. ..	589	97%
24	M.	P.	693	5 10 9	7 7 9	54 hrs. ..	668	96%
25	M.	P.	720	6 3 0	7 7 0	54 hrs. ..	697	97%
26	M.	P.	225	5 8 1	7 4 1	54 hrs. ..	204	91%
27	M.	P.	1,216	5 11 6	6 15 3	54 hrs. ..	1,203	99%
28	M.	P.	1,104	6 14 11	9 0 9	54 hrs. ..	1,054	95%
	M.	P.	153‡	6 14 5	9 2 7	..	151	99%
29	M.	P.	836	9 9 0	10 11 9	65 7/8 hrs. ..	815	97%
30	M.	P.	148 (1)	3 12 9	5 6 3	49½ hrs. ..	146	99%
	M.	P.	288 (2)	4 7 4	6 1 8	54 hrs. ..	275	95%
31	M.	P.	509	5 13 7	7 11 2	54 hrs. ..	457	90%
32	M.	P.	595	6 3 3	8 14 1	54 hrs. ..	583	..
	M.	P.	133†	4 10 1	7 10 3	72, 60 hrs. ..	120	..
33	M.	P.	654	6 12 7	7 13 2	54 hrs. ..	654	100%
34	M.	P.	1,294	6 8 8	7 11 11	54 hrs. ..	1,246	99%
35	M.	P.	643	6 1 2	8 3 11	60 hrs. ..	598	93%
	M.	T.	735	9 10 10	12 9 9	54 hrs. ..	695	95%

*Gross Earnings are almost the same as Net Earnings.

† Substitutes ‡ Double-loom Weavers (1) 5 days week (2) 6 days week

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—SACKING WEAVERS.

Unit No.	Sex.	P. or T.	Number of Workers	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	P.	34	5 9 4	8 8 2	60 hrs. ..	31	91%
2	M.	P.	116	3 5 11	4 5 4	54 hrs. ..	86	74%
3	M.	P.	25	7 14 1	11 6 8	72 hrs. ..	20	80%
4	(See Hessian)							
5	M.	P.	145	6 9 11	8 15 5	72 hrs. ..	139	96%
6	M.	P.	119	7 3 1	8 13 0	54 hrs. ..	115	96%
7	(See Hessian)		**					
8	M.	P.	111	4 7 7	7 1 2	63 hrs. ..	108	97%
9	M.	P.	344	6 8 0	7 11 5	..	328	95%
10	M.	P.	82	4 11 4	5 15 7	..	72	88%
11	M.	P.	43	6 1 4	8 9 8	54 hrs. ..	32	74%
12	M.	P.	315	7 12 6	9 0 5	54 hrs. ..	313	99%
13	M.	P.	240	5 9 10	7 5 11	54 hrs. ..	231	96%
14	M.	P.	191	7 5 4	8 13 2	54 hrs. ..	181	94%
(Substitute)	M.	P.	23	4 8 6	5 8 9	54 hrs. ..	11	48%
15	M.	P.	315	10 13 8	12 6 3	57 hrs. ..	315	100%
16	M.	P.	281	6 14 7	8 2 7	52½ hrs. ..	278	99%
17	M.	P.	117	8 6 0	9 14 2	55 hrs. ..	116	100%
18	M.	P.	162	4 13 5	7 2 3	54 hrs. ..	162	100%
19	M.	P.	281	7 3 5	9 5 3	54 hrs. ..	269	98%
20	M.	P.	203	6 3 5	8 5 0	54 hrs. ..	194	96%
21	M.	P.	257	8 1 2	10 12 5	54 hrs. ..	252	98%
22	M.	P.	382	7 6 6	8 10 4	54 hrs. ..	373	98%
23	M.	P.	356	6 13 11	8 12 6	54 hrs. ..	344	97%
	M.	T.	7	4 4 9	5 15 9	.. ..	7	100%
24	M.	P.	194	4 4 9	5 12 7	54 hrs. ..	182	94%
25	M.	P.T.	566	6 13 2	8 0 8	54 hrs. ..	541	96%
26	M.	P.	200	6 9 4	8 8 7	54 hrs. ..	183	92%
27	M.	P.	625	7 15 6	9 3 3	54 hrs. ..	625	100%
28	M.	P.	841	6 7 8	8 6 3	54 hrs. ..	798	95%
29	M.	P.	395	9 7 7	10 11 1	65-7/8 hrs. ..	379	96%
30	M.	P.	219†	4 14 0	6 10 2	49-½ hrs. ..	212	97%
	M.	P.	100‡	5 11 5	7 6 1	54 hrs. ..	94	94%
31	M.	P.	324	7 0 10	9 0 10	54 hrs. ..	311	96%
32	M.	P.	204	6 14 7	9 15 0	54 hrs. ..	204	100%
33	M.	P.	421	7 14 5	9 1 7	54 hrs. ..	421	100%
34	M.	P.	977	6 14 3	8 1 8	54 hrs. ..	944	97%
35	M.	P.	547	8 15 8	11 5 11	60 hrs. ..	543	99%

*Gross Earnings are almost the same as Net Earnings.

‡5 days week. ‡6 days week

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation.—(HEMMERS—MACHINE SEWER, MACHINEMAN.)

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
1	M.	P.	3	9 4 3	11 10 8	54 hrs. ..	3	100%
2	M.	P.	16	6 1 2	7 4 7	54 hrs. ..	15	94%
3	M.	T.	1	7 0 0	9 12 6	48 hrs. ..	1	100%
4	M.	P.	14 (1)	4 15 1	6 13 0	54 hrs.	12	86%
	M.	P.	5 (2)	8 14 4	11 3 10	..	4	80%
5	M.	P.	9	7 7 1	9 6 11	54 hrs. ..	9	100%
6	M.	P.	12	6 9 10	8 13 0	54 hrs. ..	12	100%
7	..	..	..	..	..	..	..	
8	M.	P.	12	5 11 11	8 15 3	54 hrs. ..	12	100%
9	M.	P.	61	6 7 6	7 13 5	..	61	100%
10	M.	P.	24	8 7 8	10 2 9	..	23	96%
11	M.	P.	18	5 9 1	7 6 10	54 hrs. ..	16	89%
12	M.	P.	73	8 0 11	9 5 3	54 hrs. ..	73	100%
13	M.	P.	39	4 15 6	6 10 9	..	35	90%
14	M.	P.	34	8 2 10	9 13 0	59 hrs. ..	31	91%
15	M.	P.	126	5 2 0	6 3 6	54 hrs. ..	116	92%
16	M.	P.	47	7 10 6	9 4 6	54 hrs. ..	47	100%
	M.	T.	5	5 12 4	7 15 2	..	5	100%
17	M.	P.	23	7 9 11	9 2 5	54 hrs. ..	23	100%
	M.	T.	2	6 6 6	7 12 6	..	2	100%
18	M.	P.	50 (1)	2 1 1	3 11 8	54 hrs. ..	49	98%
	M.	P.	30 (2)	6 0 6	8 3 8	..	30	100%
19	M.	P.	97	4 11 6	5 15 1	54 hrs. ..	93	96%
20	M.	P.	41	7 10 4	10 1 9	54 hrs. ..	32	78%
21	M.	P.	100	6 4 5	7 11 8	54 hrs. ..	100	100%
22	M.	P.	22	9 8 0	11 0 6	54 hrs. ..	22	100%
23	M.	P.	92	6 2 6	8 0 2	54 hrs. ..	88	96%
24	M.	P.	50 (1)	3 3 6	4 12 3	54 hrs. ..	49	98%
	M.	P.	11 (2)	8 10 3	10 11 11	..	11	100%
25	M.	P.	153	5 10 11	6 14 7	54 hrs. ..	147	96%
26	M.	P.	81	6 0 11	7 12 8	54 hrs. ..	75	93%
27	M.	P.	170	4 0 10	5 10 9	54 hrs. ..	163	96%
28	M.	P.	81	7 15 0	8 12 11	54 hrs. ..	78	96%
29	M.	P.	129	7 1 4	9 4 7	84, 54 hrs. ..	127	98%
30	M.	P.	81	2 0 1	4 14 10	54 hrs. ..	81	100%
31	M.	P.	95	5 7 9	7 4 9	54 hrs. ..	91	96%
32	M.	P.	35	9 4 6	8 0 11	54 hrs. ..	35	100%
33	M.	P.	137	6 3 9	7 14 10	54 hrs. ..	136	100%
34	M.	P.	198	10 2 2	12 4 8	73 hrs. ..	195	98%
	F.	P.	149	4 10 10	5 10 10	54 hrs. ..	149	100%
35	M.	P.	172	6 1 1	8 0 11	60 hrs. ..	170	99%

*Gross Earnings are almost the same as Net Earnings.

(1) Machine Sewers (2) Machine Hemmers.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—HAND SEWERS.

Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of working hours in the wage period.	No. and %age of full time workers.	
1	2	3	4	5	6*	7	No.	8 %age.
				Rs. A. P.	Rs. A. P.			
1	M.	P.	7	5 7 1	7 5 5	54 hrs. ..	6	86%
2	M.	P.	19	3 0 4	4 5 7	54 hrs. ..	12	63%
3	M.	T.	1	2 9 0	4 15 0	48 hrs. ..	1	100%
4	M.	P.	36	2 10 5	4 4 0	54 hrs. ..	33	92%
5	M.	P.	1	5 14 6	7 12 0	54 hrs. ..	1	100%
	F.	P.	15	4 4 7	5 13 11	54 hrs. ..	15	100%
6	M.	P.	33	5 10 11	7 3 3	..	30	91%
7	None–							
8	M.	P.	4	2 0 5	3 15 4	54 hrs. ..	4	100%
	F.	P.	32	2 0 9	3 15 6	..	31	97%
9	M.	P.	34	2 10 11	4 6 8	..	31	91%
	F.	P.	65	3 1 10	4 6 8	..	65	100%
10	M.	P.	4	2 10 0	4 0 8	..	4	100%
	F.	P.	49	2 6 8	3 12 0	..	48	98%
11	M.	P.	27	2 1 11	3 9 4	54 hrs. ..	27	100%
12	M.	P.	28	3 12 2	5 0 3	54 hrs. ..	28	100%
	F.	P.	108	3 8 4	4 11 10	54 hrs.	104	96%
13	M.	P.	41	2 9 5	4 1 10	54 hrs. ..	36	88%
	F.	P.	25	2 10 7	4 2 8	54 hrs.	25	100%
14	None–							
15	M.	P.	116	5 5 8	6 10 0	57 hrs. ..	110	95%
16	M.	P.	5	3 5 2	4 11 7	55 hrs. ..	5	100%
	F.	P.	75	3 10 5	5 0 4	..	73	97%
17	M.	P.	18	3 12 0	5 2 5	54 hrs. ..	18	100%
	F.	P.	25	3 5 9	5 2 9	..	25	100%
18	None–							
19	M.	P.	6	2 10 2	3 11 4	54 hrs. ..	6	100%
	F.	P.	129	2 7 5	3 10 0	..	124	96%
20	M.	P.	43	4 11 2	6 6 6	54 hrs. ..	39	91%
	F.	P.	38	4 4 3	5 13 8	..	38	100%
21	F.	P.	251	4 11 4	6 2 4	54 hrs. ..	251	100%
22	F.	P.	60	5 13 8	7 2 11	54 hrs. ..	58	97%
23	M.	P.	65	3 7 10	5 0 7	54 hrs. ..	64	95%
	F.	P.	78	3 7 10	4 13 9	..	77	99%
24	F.	P.	88	2 1 10	3 12 7	54 hrs. ..	85	97%
25	F.	P.	252	2 13 2	4 1 0	54 hrs. ..	249	99%
26	F.	P.	50	3 5 8	4 14 7	54 hrs. ..	47	94%
27	M.	P.	41	1 0 11	3 1 9	54 hrs. ..	41	100%
	F.	P.	300	1 11 3	3 2 7	..	300	100%
28	M.	P.	66	3 13 9	5 4 3	54 hrs. ..	63	95%
	F.	P.	79	3 8 0	5 0 0	..	76	96%
29	..	..	..	..	..	..	..	..
30	M.	P.	15	2 3 5	3 9 2	54 hrs. ..	15	100%
	F.	P.	58	2 0 9	3 7 8	..	58	100%
31	F.	P.	121	2 8 3	4 0 6	54 hrs. ..	118	98%
32	M.	P.	26	3 1 5	4 15 5	54 hrs. ..	26	100%
	F.	P.	53	3 3 6	5 1 8	..	53	100%
33	F.	P.	111	2 8 5	4 0 0	54 hrs. ..	109	98%
34	M.	P.	28	4 9 8	6 6 6	54 hrs. ..	27	96%
	F.	P.	140	4 4 2	5 14 2	..	140	100%
35	F.	P.	155	3 10 3	5 5 0	60 hrs. ..	155	100%

*Gross Earnings are almost the same as Net Earnings.

TABLE SHOWING WAGES AND EARNINGS OF WORKERS IN JUTE MILLS IN BENGAL IN SELECTED OCCUPATIONS.

Name of Occupation—COOLIES.

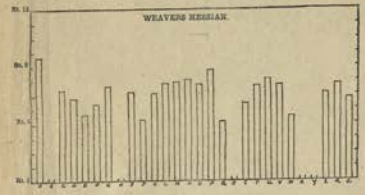
Unit No.	Sex.	P. or T.	Number of Workers.	Average Weekly Basic Wages earned.	Average Weekly Net Earnings including overtime, allowances and bonuses.	Number of Working hours in the wage period.	No. and %age of full-time workers.	
1	2	3	4	5	6*	7	No. 8	%age.
				Rs. A. P.	Rs. A. P.			
1	M.	..	20	2 2 9	3 15 3	54 hrs. ..	15	75%
2	M.	..	26	4 1 3	5 11 9	54 hrs. ..	21	81%
3	M.	..	56	2 5 1	4 7 5	48 hrs. ..	43	77%
4	M.	..	154	3 4 9	5 6 3	54 hrs. ..	148	96%
5	M.	..	108	4 12 4	5 11 1	54 hrs. ..	101	94%
6	M.	..	111	4 3 10	6 0 10	54 hrs. ..	99	89%
7	M.	..	22	2 13 2	4 15 6	54 hrs. ..	13	59%
8	M.	..	78	3 0 6	5 8 3	54 hrs. ..	77	99%
9	M.	..	450	4 8 6	6 0 3	54 hrs. ..	417	93%
	F.	..	3	2 13 6	4 15 9	..	3	100%
10	M.	..	121	3 6 10	5 5 5	54 hrs. ..	118	98%
11	M.	..	79	3 0 10	4 7 7	..	58	73%
12	M.	..	295	3 12 10	5 9 0	54 hrs. ..	287	97%
	F.	..	18	3 11 10	5 3 1	54 hrs. ..	18	100%
13	M.	..	174	3 4 7	4 13 10	60 hrs. ..	164	94%
	F.	..	4	2 10 11	4 3 3	..	3	75%
14	M.	..	268	3 4 7	5 1 10	54 hrs. ..	247	92%
15	M.	..	402	4 2 1	5 11 10	54 hrs. ..	..	..
16	M.	..	321	3 10 11	5 3 6	54 hrs. ..	310	97%
17	M.	..	67	3 13 8	5 3 6	54 hrs. ..	62	93%
18	M.	..	157	3 9 2	5 8 2	45 hrs. ..	155	99%
19	M.	..	345	3 11 6	5 0 6	54 hrs. ..	318	92%
	F.	..	6	3 2 9	4 6 6	..	6	100%
20	M.	..	389	3 10 5	4 14 6	54 hrs. ..	360	92%
21	M.	..	483	4 2 2	5 4 9	54 hrs. ..	471	98%
22	M.	..	469	3 11 2	5 8 5	54-hrs. ..	457	97%
	F.	..	6	3 0 10	4 4 6	..	..	..
23	M.	..	416	4 12 3	6 11 8	54, 60, 74 hrs.	402	96%
	F.	..	8	4 3 11	6 1 6	..	8	100%
24	M.	..	379	3 1 6	4 15 9	54 hrs. ..	319	84%
	F.	..	24	2 15 6	5 2 3	..	23	96%
25	M.	..	572	3 15 9	5 13 1	54 hrs. ..	532	93%
	F.	..	28	3 1 0	4 5 5	..	27	96%
26	M.	..	539	6 0 4	7 15 8	54 hrs. ..	492	91%
27	M.	..	771	3 8 11	4 7 11	54, 60 hrs. ..	709	92%
	F.	..	43	3 10 9	5 6 2	..	41	95%
28	M.	..	319	3 2 7	5 4 0	54 hrs. ..	275	86%
29	M.	..	793	4 1 7	5 15 7	54 hrs. ..	728	92%
	F.	..	29	3 7 0	6 1 4	..	29	100%
30	M.	..	482	3 2 2	4 10 11	54 hrs. ..	469	97%
	F.	..	14	2 13 4	4 7 0	..	14	100%
31	M.	..	323	3 10 4	5 10 6	54, 57 hrs. ..	317	98%
	F.	..	7	3 1 0	5 1 3	..	7	100%
32	M.	..	377	3 6 7	7 1 10	54 hrs. ..	355	94%
	F.	..	6	4 14 0	10 1 3	..	6	100%
33	M.	..	796	3 13 4	5 11 5	54 hrs. ..	794	100%
	F.	..	5	2 10 6	3 10 11	..	4	80%
34	M.	..	1,326	3 9 11	5 13 0	54 hrs. ..	1,179	89%
	F.	..	19	3 3 3	5 0 9	..	9	47%
35	M.	..	1,045	3 9 6	5 10 4	54, 60 hrs. ..	1,027	99%

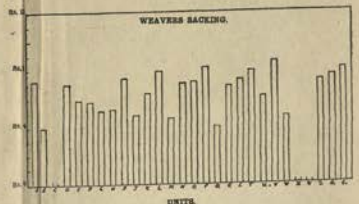
*Gross Earnings are almost the same as Net Earnings.

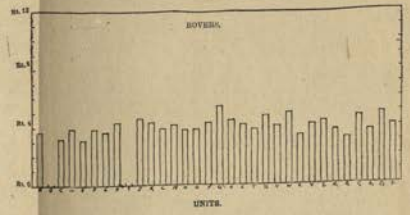
APPENDIX VI(a)

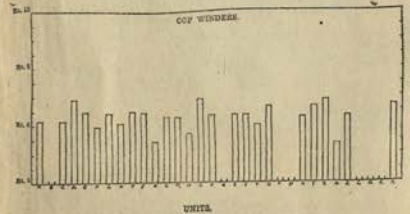
Charts showing weekly basic wages in important occupations in the jute mills in Bengal working 54 hours per week.

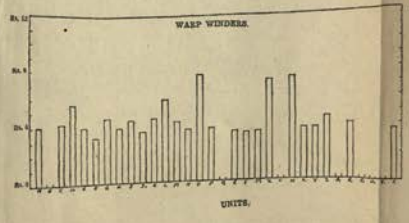
[*Full-Time Workers.*]

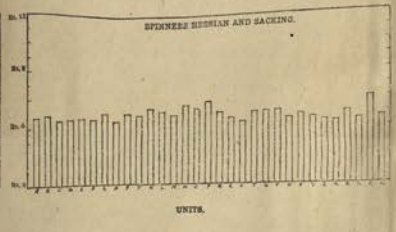


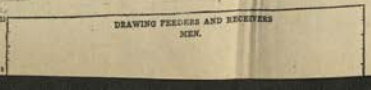


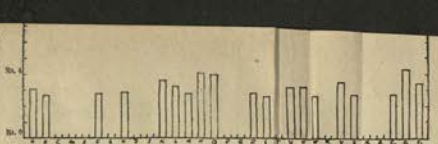











Rs. 4
Rs. 0
UNITS.

Rs. 4
Rs. 0
UNITS.

APPENDIX VII.

Table showing the range of potential earnings of workers in 70 Jute mills in Bengal reduced to hourly basis.

Occupation.	Rate in pies per hour. Maximum.	Minimum.
Batching.		
Head batching Sirdar	58·95	25·[illegible]2
Selecting Sirdar	54·30	22·92
Selector	..	..
Daily Selector	22·00	12·00
Bale Cooly	25·55	13·[illegible]0
Softener Sirdar	37·94	22·00
,, Feeder	20·94	13·87
,, Receiver	21·00	11·90
,, Feeder cooly	21·30	11·10
Jute Cutting Sirdar	37·44	22·00
Jute Cutter	24·57	11·10
Rope & Thread Cutter	20·28	11·10
Weighman	22·04	13·26
Teaser Sirdar	36·75	23·28
Dust Cooly	23·00	10·60
Teaser Feeder	21·77	11·00
,, Receiver	21·77	12·00
Preparing.		
Head Preparing Sirdar	74·85	35·00
Breaker Card Sirdar	46·24	13·92
Breaker Card Feeder	20·25	11·00
,, Receiver	23·50	10·70
Roll forma Cooly	23·42	12·00
Can Cooly	20·28	13·39
Finisher Card Sirdar	34·77	16·00
,, Feeder	23·50	10·60
,, Receiver	23·50	10·89
Drawing Line Sirdar	35·66	16·00
Drawing Feeder	24·94	10·00
,, Receiver	23·50	10·00
,, Cooly	23·47	13·39
Waste Cooly	23·00	13·00
Picker Sirdar	34·60	16·00
Picker	23·33	12·00
Roving Line Sirdar	37·77	16·00
Rover	26·22	12·60
Roving Feeder	23·42	11·00
Roving Cooly	21·75	11·00
Shifter Sirdar	32·77	16·00
Shifter	22·11	12·20
Spinning.		
Head Sirdar	106·50	34·00
Line Sirdar	69·77	22·80
Hessian Warp Spinner	24·58	16·56
Hessian Weft Spinner	26·75	16·00
Sacking Warp Spinner	26·75	16·50
Sacking Weft Spinner	28·20	15·00
Twister	26·83	16·11
Lister	25·56	17·50
Beltman	50·22	19·00
Rollerman	38·76	17·50

Occupation.	Rate in pies per hour. Maximum.	Minimum.
Spinning—contd.		
Head Cooly Sirdar	44·05	19·78
Cooly	22·92	11·10
Sweeper	27·11	9·00
Reeler	25·56	17·00
Line Sirdar	41·70	13·10
Shifter	22·06	13·44
Winding.		
Head Sirdar	47·61	18·00
Line Sirdar	28·22	23·00
Cop winding sirdar	45·00	25·92
Warp winding sirdar	42·00	21·34
Dyer	26·88	13·00
Reeler	24·25	11·83
Cop House attendant	26·65	10·90
Bobbin cleaner	20·72	10·00
Spool carrier	24·80	10·60
Sweeper	20·72	10·20
Piece rates.		
Hessian Cop winder. 16 lbs. ..	0·67	0·31
Sacking Cop winder. 16 lbs. ..	0·39	0·17
Hessian Warp winder. 8½ lbs. ..	2·40	2·04
Sacking Warp winder. 7 lbs. ..	2·31	1·70
Beaming.		
Beaming Sirdar	69·70	31·68
Hessian Beamer	41·07	25·40
Sacking Beamer	35·10	26·60
Starch cooly	33·00	13·60
Beaming cooly	17·62	17·60
Weaving.		
Hessian Head Sirdar .. .. / Sack. Head Sirdar	106·00	49·82
Hessian Line Sirdar .. .. / Sack. line Sirdar	52·52	36·44
Beam cooly	31·39	11·00
Sweeper	22·00	9·00
Beltman	28·56	13·61
Camb maker	33·50	12·76
Finishing.		
Damper cooly	22·08	13·33
Calendar man	28·15	15·22
Measuring cooly	21·78	13·33
Lapping man	22·39	14·61
Coolies	22·25	13·33
Cutting machine man	23·69	15·02
Weighing cooly	24·09	13·33
Cloth repairer	28·42	16·32
Press Sirdar	65·66	26·60
Press cooly	35·52	13·39
Hoop Cutter	25·08	16·50
Markman	31·00	17·00

APPENDIX VIII

Note on Labour Welfare Activities by Government of Bengal.

The Government of Bengal made a beginning with their Labour Welfare measures in the year 1937-38. For a few years during the initial stages these measures took the shape of payments of grants-in-aid to private organisations working for the benefit of labour. The amounts of the grants-in-aid sanctioned each year and the institutions which were the recipients of such grants during the first three years are given below :—

Year.	*Amount sanctioned.*
	Rs.
1937-38	2,250
1938-39	15,050
1939-40	3,005

In the year 1939-40 the Government plan as regards labour welfare assumed a two-fold character. While on the one hand Government remained alive to the necessity of maintaining the grants-in-aid to private organisations, it was also decided to launch a scheme of activities under their direct administrative control. The task was entrusted to the Labour Commissioner, Bengal. The nucleus of welfare institutions already existing i.e., the primary schools started by the Bengal Labour Welfare League remained but with a view to carrying out the labour welfare measures more effectively by establishing direct contact with the workers the Labour Commissioner began to establish Labour Welfare Centres in the different industrial areas of the Province. In 1940-41 a start was made with ten centres. Since then progress has been made as shown below :—

1940-	.. ..	10	Labour Welfare Centres.
1941-42	.. ..	16	„ „ „
1942-43	.. ..	22	„ „ „
1943-44	.. ..	32	„ „ „
1944-45	.. ..	41	„ „ „

These Labour Welfare Centres are placed in charge of experienced Labour Welfare Workers who are well acquainted with the problems of labour. Two Labour Welfare Workers are attached to each important centre and one to each of the others. The centres are kept open in the mornings and evenings and remain closed one day in a week. The Labour Welfare Workers are required to give periodical reports regarding the attendance of workers and the working of the centres to the Labour Officer in charge of the areas in which a particular centre stands. The Government Labour Officers, the Assistant Labour Commissioners and the Additional Labour Commissioner in charge of Labour Welfare make periodical inspections of the centres and look to their efficient management and working.

The activities of the centres consist in the main of the following programmes :—

1. Day School for children of labourers.
2. Night School for adult workers.
3. Instructional classes on—
   (a) Labour laws.
   (b) Trade Unions.
   (c) Health and Hygiene.
   (d) First aid and nursing.
   (e) Co-operation.
   (f) Prohibition, etc., etc.

4. Indoor games, music by Radio, and other recreations.

5. Establishment of Gymnasiums and organisation of sports meetings and out-door games.

6. Organisation of volunteer corps for social service, e.g., bustee cleaning.

7. Organisation of Maternity and Child Welfare lectures and establishing Crèches.

8. Exhibition of Cinema films for entertainment and labour welfare propaganda.

9. Playing of gramophone records for propaganda with music.

10. Facilities for reading and having news papers read.

11. Facilities for rendering clerical services to labour, i.e., writing of Money Orders, letters, etc.

12. Facilities for giving advice to workers for redress of grievances regarding employment.

Below is given a statement of the approximate attendance of workers at the centre :—

Year.	Approximate attendance of workers at Labour Welfare Centres per month.			
	Children's class.	Adults class.	Indoor games.	Outdoor games.
1940-41	..	..	..	..
1941-42	851	743	494	343
1942-43	507	752	500	213
1943-44	492	758	579	250
1944-45	510	981	499	199

The figures show how much yet remains to be done and how Labour Welfare work by Govt. is still in its infancy.

The amounts sanctioned and spent by Government on labour welfare activities since the inauguration of the Government Labour Welfare Centres are noted below :—

			Rs.	A.	P.
1940-41	=	Amount spent on Labour Welfare Centres ..	6,936	0	0
1941-42	=	Do. Do. ..	10,740	0	0
1942-43	=	Do. Do. ..	18,144	0	0
1943-44	=	Do. Do. ..	28,628	6	9
1944-45	=	Do. Do. ..	34,720	0	0

In addition a considerable sum has been spent as grants-in-aid to private organisations in the Calcutta Industrial Area.

It is gratifying to note that many private industrial undertakings and their Associations including the Indian Jute Mills Association have in recent times established Labour Welfare Centres for exclusive benefit of their employees. A useful sum is being spent on equipment and running expenses.

Finally it may be mentioned that in conformity with the policy of the Government of India the particular attention of the Labour Commissioner, Bengal, and of the Provincial Rationing Authorities is focussed upon encouraging the establishment of cooked Food Canteens for Labour in industry. Good progress has been made and a number of industrial concerns have thought fit to open cooked food canteens for their labour or propose to do so as the result of the activity of the Government Labour Officer for canteens appointed some months ago. The number of cooked food canteens already established in the Calcutta industrial area is 66, while 67 tea canteens have been started.

An experienced Officer is at present undergoing welfare training in England and it is hoped that on his return this part of the Labour Commissioner's activities will rapidly develop.

APPENDIX IX.

Table showing wages and earnings in selected occupations in the two Jute Mills in Cawnpore (United Provinces) covered by the Wage Census.

Wage Period: A Unit. 16-3-45 to 31-3-45.
B Unit. 12-3-45 to 25-3-45.

Unit. (1)	Sex. (2)	Piece (P) or Time (T). (3)	Number of hours of work per shift. (4)	Number of workers. (5)	Average daily basic wages earned. (6)	Average daily gross earnings including over-time allowances and bonuses. (7)	Average daily net earnings including over-time allowances and bonuses. (8)
					Rs. A. P.	Rs. A. P.	Rs. A. P.
			OCCUPATION :—*Assorters.*				
A	M	P	9	43	1 1 2	1 11 11	1 11 11
			Cutters.				
A	M	T	9	93	0 8 11	1 3 8	1 3 8
B	M	T	9	18	0 8 3	1 3 1	1 3 1
			Softner Feeders and Receivers.				
A	M	T	9	48	0 9 1	1 3 11	1 3 11
B	M	T	9	28	0 6 9	1 1 6	1 1 6
			Teasermen.				
A	M	T	9	30	0 9 2	1 3 11	1 3 11
B	..	..	..	..	..	..	..
			Breaker Feeders and Receivers.				
A	M	T	9	49	0 7 5	1 2 2	1 2 2
B	M	T	9	16	0 6 9	1 1 7	1 1 7
A	F	T	9	45	0 7 5	1 2 2	1 2 2
B	F	T	9	6	0 6 3	1 1 1	1 1 1
			Finishing Feeders and Receivers.				
A	M	T	9	61	0 7 2	1 1 11	1 1 11
B	M	T	9	31	0 6 9	1 1 7	1 1 7
A	F	T	9	21	0 7 4	1 2 1	1 2 1
B	F	T	9	8	0 6 3	1 1 1	1 1 1
			Drawing Feeders and Receivers.				
A	M	T	9	170	0 7 1	1 1 10	1 1 10
B	M	T	9	52	0 6 9	1 1 7	1 1 7
A	F	T	9	33	0 7 1	1 1 10	1 1 10
B	F	T	9	17	0 6 3	1 1 1	1 1 1
			Roving Feeders.				
A	M	P	9	62	0 9 3	1 4 0	1 4 0
B	M	T	9	21	0 6 9	1 1 6	1 1 6
A	F	P	9	25	0 8 11	1 3 8	1 3 8
B	..	..	..	..	..	..	..
			Rovers.				
A	M	P	9	44	0 11 8	1 6 5	1 6 5
B	M	P	9	18	0 14 11	1 9 9	1 9 9
			Roving Shifters.				
A	M	T	9	94	0 6 10	1 1 8	1 1
B	M	T	9	44	0 6 7	1 1 6	1 1
			Spinners.				
A	M	T	9	525	0 11 4	1 6 1	1 6 1
B	M	T	9	265	0 10 4	1 5 10	1 5 10

APPENDIX IX—*contd.*

Table showing wages and earnings in selected occupations in the two Jute Mills in Cawnpore (United Provinces) covered by the Wage Census.

Wage Period: A Unit. 16-3-45 to 31-3-45.
B Unit. 12-3-45 to 25-3-45.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
					Rs. A. P.	Rs. A. P.	Rs. A. P.
			Spinning Shifters.				
A	M	T	9	436	0 6 10	1 1 7	1 1 7
B	M	T	9	165	0 6 6	1 1 6	1 1 6
			Roll Winders.				
A	M	P	9	320	0 9 6	1 4 3	1 4 3
B	M	P	9	74	0 8 11	1 3 9	1 3 9
			Cop Winders.				
A	M	P	9	304	0 10 0	1 4 10	1 4 10
B	M	P	9	71	0 10 3	1 5 1	1 5 1
			Weavers.				
A	M	P	9	1,163	0 15 3	1 10 0	1 10 0
B	M	P	9	303	1 0 8	1 11 4	1 11 4
			Hemmers.				
A	M	P	9	218	0 13 0	1 7 10	1 7 10
B	M	P	9	33	1 2 6	1 13 4	1 13 4
			Hand Sewers.				
A	M	P	9	110	0 7 4	1 2 1	1 2 1
B	M	P	9	45	0 8 8	1 3 6	1 3 6
A	*F*	P	9	106	0 7 6	1 2 3	1 2 3
B	*F*	P	9	15	0 5 2	1 0 0	1 0 0
			Beamers.				
A	..	..	..	..	..	..	..
B	M	T	9	43	1 3 7	1 14 5	1 14 5
			Coolies.				
A	M	T	9	183	0 8 0	1 2 10	1 2 10
B	M	T	9	66	0 6 8	1 1 6	1 1 6
A	M	P	9	239	0 6 6	1 1 3	1 1 3
B	M	P	9	10	0 8 11	1 3 9	1 3 9

APPENDIX X.

Table showing wages and earnings in selected occupations in January 1944 in four Jute Mills in the Madras Presidency (South India) covered by the Wage Census.

Units.	Sex.	Piece (P) or Time (T).	Number of hours of work per shift.	Number of workers.	Average daily basic wages earned.	Average daily gross earnings including overtime, allowances and bonuses.	Average daily net earnings including overtime, allowances and bonuses.	Number of working days in the wage period.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
					Rs. A. P.	Rs. A. P.	Rs. A. P.	
				Jute Selectors.				
A	M	P	10	19	0 11 4	0 14 10	0 14 10	23 days.
B	M	P	10	5	0 11 4	1 1 1	1 1 1	23 ,,
B	F	P	10	15	0 7 10	0 11 4	0 11 4	23 ,,
C	M	T	9	8	0 6 0	0 6 9	0 6 9	6 ,,
D	M	T	9	13	0 5 9	0 7 10	0 7 10	4 ,,
				Jute Cutters.				
A	M	T	10	45	0 9 9	0 13 3	0 13 3	23 ,,
B	M	T	10	22	0 9 9	0 13 4	0 13 4	23 ,,
C	M	T	9	19	0 4 5	0 6 11	0 6 11	6 ,,
D	M	T	9	30	0 6 4	0 8 4	0 8 4	4 ,,
				Softner Feeders & Receivers.				
A	M	T	10	35	0 8 11	0 12 6	0 12 6	23 ,,
B	M	T	10	26	0 8 10	0 12 5	0 12 5	23 ,,
B	F	T	10	4	0 6 11	0 10 4	0 10 4	23 ,,
C	..	..	..	..	..	..	..	..
D	M	T	9	11	0 5 10	0 7 8	0 7 8	4 ,,
				Teaser Feeders & Receivers.				
A	M	T	10	4	0 8 11	0 12 5	0 12 5	23 ,,
A	F	T	10	12	0 7 6	0 11 0	0 11 0	23 ,,
B	F	T	10	13	0 7 6	0 11 0	0 11 0	23 ,,
C	..	..	..	..	..	..	..	..
D	M	T	9	6	0 5 11	0 7 11	0 7 11	4 ,,
				Breaker Feeders and Receivers.				
A	F	T	10	138	0 7 4	0 10 3	0 10 3	23 ,,
B	M	T	10	14	0 7 1	0 12 3	0 12 3	23 ,,
B	F	T	10	74	0 7 3	0 11 0	0 11 0	23 ,,
C	..	..	..	..	..	..	..	..
D	F	T	9	8	0 5 6	0 7 5	0 7 5	4 ,,
				Finisher Feeders and Receivers.				
A	..	..	..	..	..	..	..	..
B	..	..	..	..	..	..	..	..
C	..	..	..	..	..	..	..	..
D	F	T	9	5	0 5 6	0 8 4	0 8 4	4 ,,
				Drawing Feeders and Receivers.				
A	F	T	10	132	0 7 3	0 10 11	0 10 11	23 ,,
B	M	T	10	15	0 7 2	0 10 8	0 10 8	23 ,,
B	F	T	10	65	0 7 3	0 10 9	0 10 9	23 ,,
C	..	..	..	..	..	..	..	..
D	F	T	9	12	0 5 0	0 7 0	0 7 0	4 ,,
				Roving Feeders.				
A	M	T	10	24	0 8 11	0 12 4	0 12 4	23 ,,
A	F	T	10	22	0 7 6	0 10 10	0 10 10	23 ,,
B	M	T	10	11	0 8 10	0 12 4	0 12 4	23 ,,
B	F	T	10	16	0 7 6	0 11 0	0 11 0	23 ,,
C	F	T	9	111	0 5 0	0 5 8	0 5 8	6 ,,
D	F	T	9	10	0 5 0	0 7 0	0 7 0	4 ,,

APPENDIX X—*contd.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
					Rs. A. P.	Rs. A. P.	Rs. A. P.	
				Rovers.				
A	M	T	10	38	0 10 6	0 14 0	0 14 0	23 days.
B	M	T	10	18	0 11 2	0 14 9	0 14 9	23 ,,
C	M	T	9	12	0 6 11	0 7 9	0 7 9	6 ,,
D	M	T	9	12	0 9 8	0 11 2	0 11 2	4 ,,
				Roving Shifters.				
A	M	T	10	47	0 7 4	0 10 9	0 10 9	23 ,,
B	M	T	10	40	0 7 4	0 10 9	0 10 9	23 ,,
C	M	T	9	15	0 5 1	0 5 10	0 5 10	6 ,,
D	M	T	9	4	0 6 4	0 7 11	0 7 11	4 ,,
				Spinners.				
A	M	T	10	269	0 12 2	0 15 9	0 15 9	23 ,,
B	M	T	10	199	0 12 4	0 15 9	0 15 9	23 ,,
C	M	T	9	128	0 8 6	0 9 4	0 9 4	6 ,,
D	M	T	9	127	0 9 7	0 11 8	0 11 8	4 ,,
				Spinning Shifters.				
A	M	T	10	224	0 7 4	0 10 10	0 10 10	23 ,,
B	M	T	10	147	0 7 4	0 10 9	0 10 9	23 ,,
C	F	T	9	94	0 4 7	0 5 1	0 5 1	6 ,,
D	M	T	9	24	0 5 6	0 7 6	0 7 6	4 ,,
				Cop Winders.				
A	M	P	10	100	0 10 0	0 15 8	0 15 8	23 ,,
B	M	P	10	43	0 14 0	1 1 7	1 1 7	23 ,,
C	M	P	9	24	0 8 6	0 9 4	0 9 4	6 ,,
D	M	P	9	17	0 7 8	0 9 4	0 9 4	4 ,,
				Warp Winders.				
A	M	P	10	28	0 8 0	0 13 9	0 13 9	23 ,,
A	F	P	10	40	0 7 8	0 11 2	0 11 2	23 ,,
B	M	P	10	28	0 8 8	0 12 1	0 12 1	23 ,,
B	F	P	10	20	0 9 0	0 12 6	0 12 6	23 ,,
C	M	P	9	32	0 6 1	0 6 6	0 6 6	6 ,,
D	M	P	9	11	0 11 7	0 13 7	0 13 7	4 ,,
				Beamers.				
A	M	P	10	51	0 12 1	1 1 10	1 1 10	23 ,,
B	M	P	10	24	0 13 10	1 1 6	1 1 6	23 ,,
C	M	T	9	17	0 7 2	0 8 0	0 8 0	6 ,,
D	M	T	9	14	0 12 10	0 14 4	0 14 4	4 ,,
				Weavers.				
A	M	P	10	500	1 1 1	1 6 4	1 6 4	23 ,,
B	M	P	10	313	1 1 9	1 6 10	1 6 10	23 ,,
C	M	P	9	110	0 14 9	0 15 10	0 15 10	6 ,,
D	M	P	9	117	0 14 5	0 15 9	0 15 9	4 ,,
				achine Sewers.				
A }	..	..	..	..	..	..	..	..
B }								
C	M	P	9	16	0 14 6	0 15 4	0 15 4	6 ,,
D	..	..	..	..	..	..	..	..
				Hand Sewers.				
A }	..	..	..	..	..	..	..	..
B }								
C	F	P	9	87	0 4 10	0 5 6	0 5 6	6 ,,
				Coolies.				
A	M	T	10	165	0 8 11	0 12 4	0 12 4	23 ,,
	F	T	10	4	0 7 0	0 10 6	0 10 6	23 ,,
B	M	T	10	166	0 8 8	0 12 3	0 12 3	23 ,,
	F	T	10	4	0 6 11	0 10 2	0 10 2	23 ,,
C	M	T	10	33	0 6 0	0 6 7	0 6 7	6 ,,
	F	T	9	93	0 5 0	0 5 8	0 5 8	6 ,,
D	M	T	9	60	0 6 0	0 7 10	0 7 10	4 ,,

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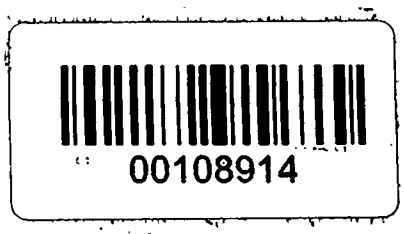
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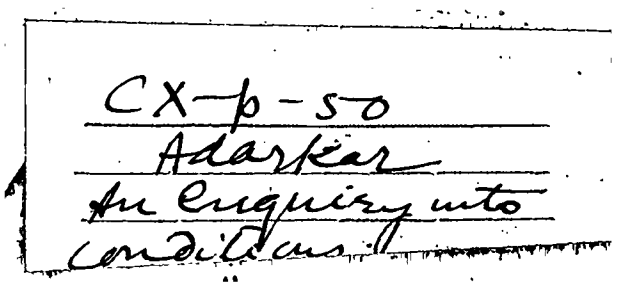

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